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TECHNICAL REPORT EL-91-15

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US Army Corps  
of Engineers

**ANALYSIS OF SCENE CONDITIONS  
AT THE LIGHT HELICOPTER  
TARGET ACQUISITION SUBSYSTEM  
DEMONSTRATION/VALIDATION  
YUMA PROVING GROUND, ARIZONA  
SEPTEMBER 1990**

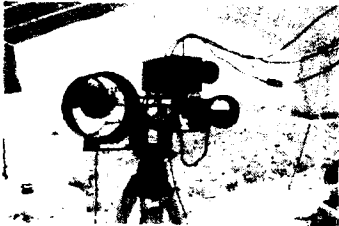
by

Bruce Sabol, Salvador Rivera, Jr.

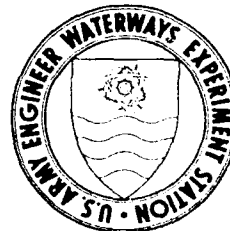
Environmental Laboratory

DEPARTMENT OF THE ARMY

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## PREFACE

The study reported herein was conducted by the US Army Engineer Waterways Experiment Station (WES) to characterize site and scene conditions during the Light Helicopter Target Acquisition Subsystem Demonstration/Validation. It was funded by the US Army Aviation Systems Command (AVSCOM), St. Louis, MO. Mr. Mel Jackson was the AVSCOM Technical Monitor.

This study was conducted under the general supervision of Dr. John Harrison, Chief of the Environmental Laboratory (EL), WES, Dr. Victor E. LaGarde III, Chief of the Environmental Systems Division (ESD), EL, and Mr. Harold W. West, Chief of the Environmental Analysis Group (EAG), EL, and under the direct supervision of Mr. Bruce Sabol, WES project coordinator. Messrs. Bruce Sabol and Salvador Rivera, Jr., ESD, prepared this report. Field support was provided by Messrs. Humphrey Barlow, Tommy Berry, and Charles Hahn.

Commander and Director of WES during preparation of this report was COL Larry B. Fulton, EN. Technical Director was Dr. Robert W. Whalin.

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CONVERSION FACTORS, NON-SI TO SI (METRIC)  
UNITS OF MEASUREMENT

Non-SI units of measurement used in this report can be converted to SI  
(metric) units as follows:

<u>Multiply</u>	<u>By</u>	<u>To Obtain</u>
degrees (angle)	0.01745329	radians
inches	2.54	centimetres

ANALYSIS OF SCENE CONDITIONS AT THE LIGHT HELICOPTER TARGET  
ACQUISITION SUBSYSTEM DEMONSTRATION/VALIDATION  
YUMA PROVING GROUND, ARIZONA, SEPTEMBER 1990

PART I: INTRODUCTION

1. Almost all image-based automatic target recognition (ATR) systems use statistical pattern recognition techniques to detect targets within background. The ATR logic filters the entire image for target-like objects which it examines in greater detail to make first-level target-acquisition decisions. The detection level is the only stage which examines the entire image; all subsequent stages use only the segments of the image containing the feature of interest. The success of these stages of target acquisition (classification, recognition, and identification) is therefore contingent on successful detection. Background affects only the detection stage in this hierarchy.

2. Backgrounds in ATR imagery may comprise 95 to 100 percent of the image; there may be no a priori knowledge of targets in a field of view (FOV). Terrain and environmental conditions comprising backgrounds may consist of any conceivable set of conditions occurring within the operational envelope of the system. This translates to great variation in the possible distributions of image brightness values and of target-like image features within the background. Given the high degree of uncertainty associated with background image features and the predominance of background in target-containing imagery, understanding the general statistical characteristics of background imagery and the distribution of specific target-like features is an important part of understanding ATR performance.

3. Techniques for measuring the distribution of specific image features are referred to as image metrics. An image metric characterization of background scenes can be used to:

- a. Assess the complexity or difficulty a scene poses to an ATR system in detecting a target.
- b. Compare complexity levels available at different Continental United States (CONUS) test sites.
- c. Identify terrain and environmental factors which contribute to scene complexity.

- d. Compare scene complexity between potential conflict areas and CONUS test sites.

### Background

4. The US Army Engineer Waterways Experiment Station (WES) provided site and scene measurement support to the Multi-Sensor Fusion Demonstration Program sponsored by the US Army Laboratory Command between 1986 and 1988. During this effort an image metrics technique, based in part on ATR Working Group metrics, was developed to compare scenes from different test sites and to measure the separability of targets from background features. These techniques serve to quantify thermal and visible complexity levels in test scenes.

5. The WES was requested by the US Army Aviation Systems Command to provide scene measurement and analysis support for the Demonstration/Validation (DEM/VAL) of the Light Helicopter (LH) Target Acquisition Subsystem (TAS) conducted by the Super Team at Yuma Proving Ground (YPG), Arizona. The purpose of this support was to determine scene complexity\* conditions in the test area relative to thermal infrared and visible light target acquisition systems. This report describes the measurement and analysis conducted by WES during the period 3-13 September 1990.

### Objectives

- 6. The objectives of WES support to the LH DEM/VAL were:
  - a. To make physical, radiometric, and meteorological measurements at the test site during the DEM/VAL which would document conditions relevant to the TAS sensors and aid in understanding the performance of the TAS.
  - b. To obtain visible and thermal infrared imagery independently during the DEM/VAL and to compute image metrics which would be relevant to the lower level target acquisition decisions made by the TAS.
  - c. To conduct a cursory analysis of the data collected to develop an understanding of factors causing temporal and spatial variations in image metrics values during the DEM/VAL.

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\* Scene complexity refers to the degree of challenge a specific target-containing scene poses to an ATR system. It has been defined as the amount of background texture that is similar to the target in terms of the image features used in the ATR system (Sabol and Hall 1990).



- d. To compare those image metrics values with those measured by WES at other ATR test sites.

### Scope

7. The intent of this report is to describe the field measurements conducted by WES at the DEM/VAL between 3 and 13 September 1990. A cursory analysis is provided to help understand variations in image metrics values; it is not within the scope of this report to conduct an exhaustive analysis of metrics values. The primary intent is to describe measurements and data in sufficient detail to allow for an analysis to relate conditions and metrics to TAS performance.

## PART II: METHODOLOGY

8. From 3 to 13 September 1990, meteorological and radiometric measurements were made, and thermal infrared and visible images were collected. The following paragraphs describe procedures used in obtaining each type of data.

9. Meteorological measurements were collected by an automatic portable weather station (Figure 1) placed at the sensor location. Parameters measured include air temperature, downwelling radiation (0.4- to 1.0- $\mu\text{m}$  waveband), relative humidity, precipitation, wind speed, and wind direction. Measurements were made once a minute and were stored as 15-min averages.

10. Radiometric temperature data of a hulk tank and of background terrain features were gathered using a set of infrared staring radiometers which measure apparent temperature in the 8- to 14- $\mu\text{m}$  waveband. Radiometer stations were set in the training area east of Middle Mountain Road. Radiometers (Figure 2) were aimed at the turret and road wheels of hulk ETA-4 (two replicates each) in the line of sight to the sensors at site 9. Additional radiometers were placed to measure the temperature of bare ground (three replicates) and vegetation (four replicates). Instantaneous measurements were made at 1-min intervals and were output as 15-min averages; an emissivity of 0.99 was assumed for temperature estimation.

11. Thermal and visible imagery were collected simultaneously with TAS testing from 6 to 12 September. One hundred and twenty-two encounters with operating targets were recorded, along with numerous hulks, during this time. These encounters include both day and night conditions, training and testing configurations,\* and comprise 206 thermal images and 52 visible images. Additionally, background-only imagery of the entire field of regard used for training and testing was taken at 2-hr intervals over a 24-hr period on 13 September. The WES sensor site was positioned at site 9, located 20 m to the west southwest and 0.17 m below the elevation of the TAS sensor. The WES sensor suite consisted of an 8- to 14- $\mu\text{m}$  thermal imager (Agema Thermovision AGA model 782) and a low-light camera (Photometrics 200 charge-coupled device (CCD) camera) mounted on and boresighted with theodolite (Figure 3). The

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\* Configurations are defined as specific sets of target types positioned at fixed locations in the FOV in fixed orientations relative to the TAS sensor.

thermal imager uses a 3.5-deg\* FOV lens producing a 140-pixel by 140-pixel image of square pixels. Radiometric temperatures are estimated in this DC-restored system using recent calibrations. During operations, these temperature estimates were frequently checked by imaging two passive blackbodies instrumented with thermistors. All digital thermal images were obtained by frame-averaging 10 sequential frames. The visible light camera uses a CCD detector (576 horizontal pixels by 384 vertical pixels) to measure a 3-deg horizontal by 2-deg vertical FOV. The CCD detector responds to energy in the 0.4- to 0.8- $\mu$ m waveband. The output is recorded in 14-bit resolution. Though this system is not radiometrically calibrated, all exposure and filter settings are held constant for DEM/VAL imagery so that a relative comparison of brightness values can be made.

12. The WES imaging procedure during use of the TAS consisted of recording an image every 2.5 deg in azimuth across a wide field of regard containing all targets in the current configuration. A fixed span in azimuth and a fixed elevation were used for each target configuration. Azimuth spans and elevation angles for each configuration are listed below.

<u>Azimuth*</u>	<u>Elevation**</u>	<u>Configuration</u>
162 - 184.5 by 2.5	91.33	Training configurations 1 and 2
162 - 184.5 by 2.5	90.75	Training configuration 3
235.25	92.33	Test configurations 7 and 8
185 - 207.5 by 2.5	91.25	All other test configurations

\* Measured in degrees clockwise from Universal Transverse Mercator (UTM) north, approximately 1.44 deg east of true north.

\*\* Measured as degrees from vertical.

Identical angles for many different configurations were used to allow direct comparison of background scenes. The angular position of each target was determined by direct measurement by WES or YPG surveyors. Operational hours for the TAS were from 2 a.m. to noon daily.

13. To obtain imagery that would determine temporal variations in image metrics, systematic diurnal imaging of "standard views" was performed at even-numbered hours from 2 a.m. to midnight on 13 September. Visible imagery was collected from 8 a.m. to 6 p.m. Fourteen images, which encompassed all fields

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\* A table of factors for converting non-SI units of measurement to SI (metric) units is presented on page 3.

of regard for training and testing configurations, were collected each time. These standard views are listed in Table 1.

### PART III: DESCRIPTION OF SITE AND CONDITIONS

14. The LH DEM/VAL was conducted at site 9 on Cibola Range, YPG, Arizona (Figure 4). The site is located atop a hill approximately 40 m above the adjoining terrain. The terrain is principally a vast alluvial fan typified by an extensive wash network separated by large patches of desert pavement. The site is bounded by the Middle Mountains to the east and by the Chocolate Mountains to the west and north. The total field of regard (FOR) for the sensors tested extended from SSE to SW. A photographic panorama of this FOR is illustrated in Figures 5, 6, and 7. These photographs were taken from the WES sensor location; azimuth and elevation angles (measured relative to UTM) marked on these photomosaics are relative to the WES sensor location.

15. The FOR was divided into "training" and "testing" areas. The training area (Figure 5A), to the east of Middle Mountain Road (located along azimuth 180 deg), is backdropped by the Middle Mountains at approximately the 3.5-km range. Eight hulk tanks were placed at selected locations within the training area for the duration of the DEM/VAL. The testing area (Figures 6 and 7), to the west of Middle Mountain Road, provided unobstructed lines of sight, over flat terrain, in excess of 15 km.

16. Meteorological conditions, measured from the WES portable weather station at site 9 from 4 to 13 September, are summarized in Figure 8. A complete listing is contained in Appendix A. Average air temperature during this period was 33.6° C, ranging from a minimum of 23.6° C to a maximum of 44.6° C. High humidity, cloud cover, depressed air temperatures, and measurable precipitation were observed from 3 to 5 September. After this time, skies cleared and temperatures increased. Averaged conditions for a "typical" day, created by averaging weather variables by time of day, are illustrated in Figure 9.

17. An average diurnal summary of radiometric temperature data for the instrumented hulk and the selected terrain features is graphically depicted in Figure 10. A complete listing of radiometric data is contained in Appendix A. Bare ground heated up the quickest after sunrise, while vegetation and the hulk exhibited a slower rise. Typically, bare-ground temperature peaked about 2 p.m., followed by a rapid cooling. Other features peaked 1 to 2 hr later at a lower temperature. Several contrast reversals occurred. Before dawn the hulk was warmer than the bare ground and vegetation. Within 90 min after sunrise, the bare ground became warmer than the hulk and the vegetation. The second contrast reversal occurred about 6 p.m., when the bare soil dropped

below the temperature of the hulk and the vegetation. The hulk remained warmer than either bare ground or vegetation through the rest of the night.

#### PART IV: DESCRIPTION AND INTERPRETATION OF IMAGE METRICS

18. Scene analysis was conducted using an image metrics approach (Sabol and Hall 1990). Image metrics are measures of the value or distribution of selected features within the image. The premise behind this approach is that metrics, which measure features relevant to those used by the ATR system to identify regions of interest (precursor to detection), can serve as an indicator of difficulty or scene complexity. For example, if a sensor system uses standard deviation of image brightness to set thresholds, very high background standard deviations may result in missed target detections. A second example would be to consider a sensor system that looks for bright target-sized blobs; this would perform poorly when such features were abundant in the background scene.

19. Image processing procedures used by the TAS to identify regions of interest in the automatic mode were determined.\* A set of image metrics was subsequently selected. These metrics consisted of (a) global target-independent metrics for measuring characteristics of the entire image, including any targets in the image (these are referred to as "scene metrics"), and (b) target-specific metrics for measuring feature values of known target locations within the image and for comparing these with the rest of the image (these are referred to as "target metrics"). Table 2 lists and describes these metrics and provides information on how to interpret their values. In the WES analysis, greatest emphasis was placed on scene metrics that measure distribution of target-sized contrasting background objects (T\_CNTnn, V\_CNTnn; described in Table 2), and on target metrics that measure target contrast (T\_CONTR, DARK\_CON) and conspicuity of target contrast (TCON\_GTP, T\_TlR2, VCON\_GTP, V\_TlR2). Other metrics are included to provide general information about background and target feature values, and continuity with other WES-archived metric data sets.

20. Several metrics require knowledge of the range to all parts of the image and to specific targets. Ranges to specific targets, required for computing target metrics, were obtained from measurements made by the YPG survey team. Passive range estimation was used for sizing the target-sized contrast windows and for limiting the portion of the image processed for metrics

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\* Personal Communication, 30 May 1990, Charles Channel, Electrical Engineer, Hughes Aircraft Company, El Segundo, CA.

computations. Only the portion of the measured image between 0.7 km and 6.5 km was used for analysis; this served to eliminate sky and foreground from metrics computations. A passive ranging technique created a range image for each FOV to satisfy this requirement. This was accomplished by using a ray-tracing algorithm over a flat-facet terrain model based on Defense Mapping Agency Level I digital topographic elevation data for the site 9 area at YPG, Arizona. Accuracy tests of this technique using 23 surveyed points indicated that 80 percent of these points were within 10 percent of being correct, and the worst case error was an overestimation of 19 percent. The accuracy of this passive ranging technique was judged adequate for present purposes.



## PART V: DESCRIPTION OF DATABASE

21. An entire listing of data described in this report is presented in Appendixes A through E. These data are also contained on IBM-PC compatible 5-1/4-in. high density floppy diskettes in dBase III format files. Meteorological and radiometric data are contained in Appendix A. Scene metrics for all imagery collected are contained in Appendixes B (thermal) and C (visible). Target metrics for all operating and hulk targets encountered are contained in Appendixes D (thermal) and E (visible). Variable names used in the dBase files and in this document are listed in the respective appendixes.

22. There was no formal agreement on test naming convention between WES and the TAS test director; however, there are numerous variables in the database which will enable proper merging of WES data and TAS performance data. Each observation in all three files is associated with a time/date. All image data and associated metrics have a purpose variable that is set to either baseline, testing, training, or demonstration. "Baseline" imagery was acquired on 13 September on even-numbered hours and is unrelated to any TAS operations occurring on that date. "Testing" imagery was acquired in association with TAS record trials in the testing area to the west of Middle Mountain Road. "Training" imagery was acquired in association with TAS operations in the training area located to the east of Middle Mountain Road. "Demonstration" imagery was taken in the testing area in association with the TAS demonstration scenario. All imagery acquired for testing and training purposes was associated with a configuration number assigned by the TAS test director. The horizontal pointing angle for each individual image is recorded in AZIMUTH (scene metrics file) or IMG\_AZTH (target metrics file); it is measured in degrees counterclockwise from UTM north. The vertical pointing angle, recorded as ELEV (scene metrics file) or IMG\_ELEV (target metrics file), is measured in degrees from vertical.

23. Individual targets in the target metrics file (Appendixes D and E) are identified by TYPE (tank, truck, APC, or hulk), ID (integer number assigned by YPG surveyors), ORIENTATION (FF=front, RF=right front, RR=right, RB=right rear, BB=rear, LB=left rear, LL=left, LF=left front), RANGE (distance in meters from target to WES sensor location), TGT\_AZTH (azimuth to target in degrees counterclockwise from UTM north), and TGT\_ELEV (vertical angle to target in degrees off vertical).

## PART VI: ANALYSIS

24. An analysis is presented to: (a) summarize the range of scene and target metrics values, (b) examine how these values change as a function of time of day and of specific FOV within the field of regard, and (c) examine how metrics values from the DEM/VAL compare with the same metrics obtained at other ATR test sites. Metrics for imagery taken simultaneously with TAS training and testing were most relevant to understanding TAS performance. This imagery, however, was not specifically intended to resolve how time of day or location within the FOR affected metrics values. To address these questions, metrics from baseline imagery were used. Each of the following sections state the subset of data used to perform the analysis.

25. Summaries of scene and target metrics values are presented in Tables 3 to 14 for imagery taken during TAS training and testing periods. These tabular summaries are divided by waveband (thermal or visible) and by metric type (scene or target). Thermal image metrics are further subdivided by time of day (before or after sunrise) and by purpose (training versus testing). Summary statistics include mean, standard deviation, minimum, 10th percentile (P10), median, 90th percentile (P90), maximum, and 90th minus 10th percentile (referred to as 80-percent range).

26. Thermal scene metrics are summarized in Tables 3 through 7. The spread of values indicates a diversity of thermal scene conditions from very bland to highly textured. The range of conditions, probably best represented by the 80 percent range statistic, shows that daytime imagery tends to be more textured and variable than predawn imagery. Comparison of thermal scene metrics between training and testing areas shows little difference.

27. Thermal target metrics are summarized in Tables 8 through 12. The overall mean target contrast (T\_CONTR) was  $0.4^{\circ}\text{C}$ , but this varied greatly from  $-1.2^{\circ}\text{C}$  to  $+1.7^{\circ}\text{C}$ . Conspicuity of targets, estimated by the various measures (TCON\_GTP, T\_TIR2, THOT\_GTP), also varied greatly. Target thermal contrast was higher before dawn, as was the global conspicuity of the contrast (TCON\_GTP); local conspicuity (T\_TIR2), however, was higher during the daytime. This apparent contradiction is explainable by the greater target-sized local contrast (T\_CNTnn, see Table 2) of daytime imagery. Targets in the daytime are locally more conspicuous, but they are competing with more target-sized hot blob-shaped features in the background. Differences in thermal target metrics between training and testing were considered negligible.

28. Visible scene and target metrics are summarized in Tables 13 and 14, respectively. Visible imagery represents daytime conditions only and was acquired only in the testing area because of camera malfunctioning during training configurations. Brightness values cover the full 14-bit dynamic range with image means ranging between 45 and 2906. On the average, targets were darker than their immediate background by an average of 117 digital brightness units but ranged from 190 units brighter to 369 units darker. The global conspicuity of the local target contrast averaged only 0.67 - not very conspicuous. The darkest pixel on target proved to be a most conspicuous feature with its global conspicuity (VDRK\_GTP) averaging 0.95. Among the two wavebands, target features listed in order of decreasing conspicuity are visible darkest pixel on target, thermal hottest pixel on target, local contrast in the thermal band, and local contrast in the visible band.

29. Baseline imagery was used to examine time of day and spatial effects on scene and target metrics. Temporal effects for the scene metrics in the thermal band are displayed in Figure 11. Each data point in these figures represents the average metrics value of the 14 baseline images taken at each sampling time. Image mean temperature (TMP\_MEAN) increases from a dawn minimum to a peak in early afternoon, after which temperature declines into the evening. Thermal variability metrics, thermal standard deviation (TMP\_STDV), target-sized local contrast (T\_CNT95), and the Georgia Tech Clutter metric (T\_CLUTTR), exhibit a daytime increase similar to the typical solar-loading curve (Figure 9).

30. Targets imaged in the baseline imagery include only the hulks parked in the training area. These were the only targets in a fixed position for the duration of the baseline imaging. Target temperatures (T\_MEAN, T\_MAX in Figure 12a) exhibit an increase during the daytime period. Local contrast (T\_CONTR in Figure 12b) of these targets showed peak positive contrasts, around  $+0.65^{\circ}\text{C}$ , 2 hr before sunrise and 1 hr after sunset. Between these times, contrast decreased to a minimum value of  $-0.5^{\circ}\text{C}$  at noon. Target contrast "crossovers" occurred at approximately 0745 hours (from positive to negative) and 1530 hours (from negative to positive). Global conspicuity of the local contrast is indicated TCON\_GTP in Figure 12c; targets were highly conspicuous during the nighttime period but became very inconspicuous during the day. Local conspicuity of the targets, indicated by T\_TIR2 in Figure 12d, was low during the day but increased rapidly to a peak value around sunset.

31. The hulk targets, used in analysis of baseline target metrics, have no internal heat source, so they have lower signature levels than comparable operating targets used during testing. To evaluate the validity of the temporal analysis described above, similar temporal analysis is performed using operating targets and hulks independently. Results are illustrated in Figure 13. Operating target means are more variable (higher standard error about the mean) than the hulks because they were taken over multiple days; however, it is apparent that operating targets do not lose their conspicuity during daylight hours the way the hulks do.

32. Temporal effects on visible metrics from the baseline imaging are displayed in Figures 14 and 15. Visible brightness and texture show a midday peak. Continuity of target metric data suffers from missing observations at the 2 p.m. measurement time. However, it is apparent that targets are very conspicuous using dark contrast and darkest pixel-on-target features during most of the day, with a peak around midday. Unlike the thermal data, there is no reason to expect differences between hulks and operating targets in the visible band.

33. Time of day exerts a pronounced effect on thermal and visible metrics. Analysis to detect spatial effects, i.e., effect of different FOVs on metric values, must therefore avoid any confounding with temporal effects. Spatial effects were analyzed by averaging scene metrics obtained from baseline imaging; all times of day were therefore given equal weighing. Mean values of selected scene metrics, bounded by a single standard error, are plotted by azimuth angle (Figures 16 and 17). Thermal scene metrics values (Figure 16) were generally similar between training and testing areas with the exception of the farthest west testing FOV (WES view 14, used for testing configurations 7 and 8). This particular view tended to be warmer and more thermally textured than all others; it also had the shortest range of any FOV used for testing or training. The shortness of range would allow the sensors to respond to terrain features in greater detail and would minimize atmospheric attenuation effects. Excluding view 14, training FOVs tended to have slightly higher spatial variability of temperatures ( $T_{CLUTTR}$ ,  $T_{CNT95}$ ) and more evenly distributed temperature histograms ( $TMP\_STDV$ ,  $T\_ENTRO$ ).

34. Spatial analysis of visible scene metrics (Figure 17) shows some differences between various groupings of views. Excluding view 14, testing views have a higher average brightness than training views. Average values for metrics indicative of spatial variation ( $V\_CNT95$ ) and brightness

distribution (V\_STD, V\_ENTRO) are generally similar between testing and training views; however, the spread of these values (width of standard error bounds) is considerably higher for testing views.

35. A comparison is made between DEM/VAL thermal and visible scene metrics and similar data collected from other ATR test sites (Figures 18 to 20). Scatter plots of 24-hr baseline thermal scene metrics (TMP\_STDV versus TMP\_MEAN, and TMP\_STDV versus T\_CNT95) are displayed (Figure 18) for the DEM/VAL (YPG), Fort Hunter Liggett, California (March 1987, January 1988); Orlando, FL (July 1987); and Cibola site 9, Yuma Proving Grounds (July 1987). DEM/VAL thermal scene metrics cluster with those from the previous measurements at site 9. Both YPG excursions indicate warmer scenes than those encountered during the Fort Hunter Liggett or Orlando excursions. Visible scene metrics data, collected during baseline imaging, are available for Fort Hunter Liggett and are compared with similar DEM/VAL data (Figure 17). The Fort Hunter Liggett site reveals a broader range of brightness values (V\_MEAN) and image variability (V\_STD and V\_CNT95). Similar thermal and visible scene metrics data are displayed (Figure 18) for imagery collected during system testing operations (taken under less controlled conditions than baseline imagery). These data illustrate similar trends.

## PART VII: SUMMARY

36. In support of the LH TAS DEM/VAL conducted at Yuma Proving Ground, Arizona, during August and September 1990, WES collected field measurements and imagery from 3 to 13 September. The purpose of the data collection was: (a) to document physical, meteorological, and radiometric conditions relevant to the TAS, (b) to analyze the imagery using image metrics expected to be relevant to TAS pre-detection image processing, and (c) to use these metrics to evaluate scene complexity levels within the DEM/VAL and relative to other ATR test sites.

37. Automated stations were installed to record meteorological conditions and radiometric temperatures of a hulk tank and predominant terrain features. Thermal and visible imagery were obtained using commercially available digital imaging equipment as similar as possible to the TAS sensors. Two imagery sampling designs were followed. In the first, imagery of FOV containing test targets were collected simultaneously with TAS operations. In the second, the entire FOR was imaged every 2 hr over a 24-hr period. All images were processed to compute image metrics relevant to TAS pre-detection image processing.

38. Weather conditions during WES support were typical of the late summer "monsoon" season at Yuma; conditions ranged from hot and humid with afternoon squalls to very hot and dry under totally sunny conditions. Each predominant terrain feature exhibited a different characteristic temperature cycle over the diurnal period. Bare ground areas heated up and cooled off most rapidly; vegetation exhibited slower heating and cooling and more closely followed the air temperature.

39. Image brightness and spatial variability measures varied greatly in both wavebands for the imagery collected. Time of day exerted the most pronounced effect on scene and target metrics in both wavebands. Thermal scenes were hotter and more textured during the day; targets were warmer than adjoining local background and exhibited more conspicuity during the nighttime hours. Passively heated targets (hulks) exhibited a relatively smooth sinusoidal cycle of thermal contrast and contrast conspicuity over the diurnal period. Hulks were relatively warm before sunrise; after sunrise, the temperature of the bare ground areas surpassed that of the hulks, and they "disappeared" into the background. By midmorning the hulks were relatively cold and conspicuous as cold objects. By late afternoon temperature in the bare ground

areas fell below the temperature of the hulks, which again became conspicuously warm. Operating targets did not exhibit this large decrease in contrast during the daytime hours. Visible scene statistics followed solar illumination levels directly and exhibited greatest brightness and spatial variability at midday. Targets exhibited the greatest dark contrast and conspicuity during midday.

40. Spatial effects (variation in metric values as a function of imaging different FOV within the FOR) were also observed although they were not as pronounced as time of day (temporal) effects. The farthest west scene in the FOR, used for test configurations 7 and 8 (WES view 14), was least like all other portions of the FOR. This view tended to be warmer and more thermally textured and had a greater range of brightness and visible texture. The short-range effects were probably the primary reason for the difference. Excluding this view, there were some differences between testing and training areas. In the thermal band, the training area was more textured and variable than in the testing area. In the visible band, the testing area was brighter than the training area and had a greater range of texture and variability within the scene.

41. Relative to metrics data from other ATR test sites presently in the WES database, the DEM/VAL site exhibited higher temperature scenes than either the Orlando, FL, or Fort Hunter Liggett, California, sites and more thermal variability within scene than the Orlando site. In the visible band, the Fort Hunter Liggett site was brighter and exhibited greater variability than the DEM/VAL site; visible data were not available for Orlando.

## REFERENCES

Beard, J., Clark, L., and Velton, V. 1985. "Characterization of ATR Performance in Relation to Image Measurements," unpublished paper, AFWAL/AARF, Wright Patterson AFB, Ohio.

Carlson, G. E., and Radford, D. J. 1986. "Image Metric Study," UMR EE Report No. CSR-2, Electrical Engineering Department, University of Missouri, Rolla.

Hetzler, M. C., et al. 1987. "A Study of Clutter in Infrared Backgrounds," Proceedings of Conference on Infrared Image Processing and Enhancement, SPIE, Vol 781, pp 10-17.

Press, W. H., et al. 1986. Numerical Recipes, Cambridge University Press, New York.

Reynolds, W. R. 1990. "Toward Quantifying Infrared Clutter," Proceedings, SPIE Conference on Characterization, Propagation, and Simulation of IR Scenes, Orlando, FL.

Sabol, B., and Hall, K. 1990. "Image Metrics Approach to Understanding Effects of Terrain and Environment on Performance of Thermal Target Acquisition Systems," Proceedings, SPIE Conference on Characterization, Propagation, and Simulation of IR Scenes, Vol 1311, pp 284-302.



Table 1  
Standard Imaging Views

<u>View</u>	<u>Azimuth deg</u>	<u>Elevation deg</u>	<u>Configurations Covered</u>
1	157	91.33	Training
2	159.5	91.33	Training
3	162	91.33	Training
4	164.5	91.33	Training
5	167	91.33	Training
6	169.5	91.33	Training
7	172	91.33	Training
8	190	91.33	All testing configura- tions except 7 and 8
9	192.5	91.33	All testing configura- tions except 7 and 8
10	195	91.33	All testing configura- tions except 7 and 8
11	197.5	91.33	All testing configura- tions except 7 and 8
12	200	91.33	All testing configura- tions except 7 and 8
13	202.5	91.33	All testing configura- tions except 7 and 8
14	235.33	92.33	Test configurations 7 and 8

Table 2  
Description of Scene and Target Metrics Used

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
scene	image mean brightness	average image brightness within range bounds <sup>1</sup>	thermal	TMP_MEAN	°C	
			visible	V_MEAN	BV <sup>2</sup>	
"	image minimum brightness	minimum brightness value	thermal	TMP_MIN	°C	
			visible	V_MIN	BV	
"	5 percentile brightness	5 percentile brightness value	thermal	TMP_05	°C	
			visible	V_PER05	BV	
"	image median brightness	median brightness value	thermal	TMP_MED	°C	
			visible	V_MEDIAN	BV	
"	95 percentile brightness	95 percentile brightness value	thermal	TMP_95	°C	
			visible	V_PER95	BV	
"	image maximum brightness	maximum brightness value	thermal	TMP_MAX	°C	
			visible	V_MAX	BV	
"	image standard deviation	standard deviation; parametric measure of spread of brightness values in data space	thermal	TMP_STDV	°C	
			visible	V_STD	BV	
"	90 percentile range	95 percentile value minus 5 percentile value; nonparametric measure of spread of brightness values in data space	thermal	T_RNG90	°C	
			visible	V_RNG90	BV	
"	skewness	measure of asymmetry of brightness histogram;  <u>interpretation:</u> skew=0 indicates symmetry, skew<0 indicates negative skew, skew>0 indicates positive skew.	thermal	T_SKEW	DL <sup>3</sup>	(Press et al., 1986)
			visible	V_SKEW		
"	entropy	measure of evenness of brightness histogram;  <u>interpretation:</u> relatively high values indicate even distributions	thermal	T_ENTRO	DL	(Carlson and Radford 1986)
				V_ENTRO		

\* See References at the end of the main text.

(Continued)

Table 2 (Continued)

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
scene	Georgia Tech clutter metric	average standard deviation of boxes twice the size of a target (8m vert X 16m horiz) at middle range.  <u>interpretation:</u> high values indicate local variation in image	thermal	T_CLUTTR	°C	(Hetzler et al. 1987)
"	Reynolds clutter metric	portion of standard deviation attributable to local variation  <u>interpretation:</u> high values indicate predominance of local thermal variation	thermal	T_REYNO	DL	(Reynolds 1990)
"	target-sized local contrast	measures the nn percentile value of local contrast (bright contrast for thermal, dark contrast for visible) of target sized objects in background	thermal	T_CNTnn	°C	(Sabol and Hall 1990)
			visible	V_CNTnn	BV	
target	target mean	average brightness value of target-sized box, 8m(H)x4m(V), centered about a target	thermal	T_MEAN	°C	
			visible	V_MEAN	BV	
"	target maximum	brightest pixel in target sized box centered about target	thermal	T_MAX	°C	
			visible	V_MAX	BV	
"	target minimum	darkest pixel in target sized box centered about target	thermal	T_MIN	°C	
			visible	V_MIN	BV	
"	target standard deviation	standard deviation of brightness values in target-sized box centered about target	thermal	T_STD	°C	
			visible	V_STD	BV	

(Continued)

(Sheet 2 of 3)

Table 2 (Concluded)

Metric Type	Metric Name	Description	Wave-band	Name in Database	Units	Ref.
target	pixels on target	number of pixels in target-sized box centered about target	thermal	T_POT	# of pixels	(Beard, Clark, and Velton 1985)
			visible	V_POT		
"	local target contrast	average of target-sized box minus average of local adjoining background	thermal	T_CONTR	°C	
"	local target dark contrast	average of local adjoining background minus average of target sized box	visible	DARK_CON	BV	
"	target interference ratio squared (TIR <sup>2</sup> )	measure of local target conspicuity; equals square of local target contrast divided by square of local background standard deviation	thermal	T_TIR2	DL	(Beard, Clark, and Velton 1985)
			visible	V_TIR2		
"	global target prominence (GTP)	non-parametric measure of a specific target feature value relative to the entire background; interpretation: indicates portion of image for which target feature value is greater than the background.			DL (0..1)	(Beard, Clark, and Velton 1985)
"	GTP of local target contrast		thermal	TCON_GTP		
"	GTP of target maximum		thermal	THOT_GTP		
"	GTP of darkest pixel on target		visible	VDRK_GTP		
"	GTP of local target dark contrast		visible	VCON_GTP		

1. Only the portion of the image between 0.7km and 6.5 km was processed for all metrics.

2. Fourteen-bit digital Brightness Value produced by visible light CCD camera set on standard exposure setting.

3. Dimensionless number.

Table 3

Thermal Scene Metrics Summary for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	196	26.449	50.433	33.081	5.408	28.165	41.563	13.400
TMP_STDV	196	0.273	4.174	1.184	0.535	0.478	1.845	1.367
TMP_MIN	196	24.678	49.132	30.371	5.482	25.766	38.746	12.979
TMP_05	196	25.832	50.015	31.533	5.515	26.667	40.088	13.421
TMP_95	196	27.020	54.001	35.118	5.535	30.139	44.279	14.139
TMP_MAX	196	28.180	55.891	36.307	5.829	30.584	46.237	15.653
T_RNG90	196	0.717	12.704	3.585	1.611	1.355	5.392	4.036
T_SKEW	196	-2.003	2.190	0.255	0.650	-0.561	0.953	1.514
T_ENTRO	196	1.572	4.151	2.903	0.479	2.130	3.442	1.312
T_CLUTTR	196	0.199	3.244	0.839	0.385	0.359	1.246	0.887
T_CNT75	196	0.088	0.739	0.271	0.104	0.170	0.443	0.273
T_CNT95	196	0.235	2.414	0.693	0.345	0.354	1.246	0.892

Table 4

Thermal Scene Metrics Summary Before Sunrise  
(Night) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	108	26.449	32.045	29.800	1.170	28.074	31.116	3.042
TMP_STDV	108	0.382	2.172	1.358	0.352	0.936	1.828	0.892
TMP_MIN	108	24.678	29.089	26.855	1.066	25.137	28.231	3.093
TMP_05	108	25.832	30.099	27.966	1.022	26.341	29.248	2.907
TMP_95	108	27.020	34.839	32.180	1.471	30.139	33.980	3.841
TMP_MAX	108	28.395	38.430	33.111	1.873	30.509	35.248	4.739
T_RNG90	108	1.143	6.478	4.214	0.980	3.078	5.478	2.399
T_SKEW	108	-0.318	1.092	0.419	0.333	-0.023	0.933	0.956
T_ENTRO	108	2.055	3.608	3.108	0.260	2.756	3.442	0.686
T_CLUTTR	108	0.294	1.447	0.877	0.177	0.651	1.096	0.445
T_CNT75	108	0.088	0.488	0.271	0.071	0.229	0.363	0.134
T_CNT95	108	0.264	0.861	0.625	0.129	0.465	0.800	0.335

Table 5  
Thermal Scene Metrics Summary After Sunrise  
(Day) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	88	26.992	50.433	37.108	5.839	28.883	43.411	14.528
TMP_STDV	88	0.273	4.174	0.970	0.637	0.359	1.884	1.525
TMP_MIN	88	25.766	49.132	34.686	5.636	27.810	40.384	12.575
TMP_05	88	26.313	50.015	35.911	5.632	28.347	41.297	12.950
TMP_95	88	27.669	54.001	38.724	6.493	29.417	46.284	16.868
TMP_MAX	88	28.180	55.891	40.229	6.603	30.584	49.128	18.544
T_RNG90	88	0.717	12.704	2.813	1.882	1.074	5.392	4.318
T_SKEW	88	-2.003	2.190	0.054	0.858	-1.162	1.082	2.244
T_ENTRO	88	1.572	4.151	2.652	0.562	1.902	3.466	1.564
T_CLUTTR	88	0.199	3.244	0.792	0.539	0.294	1.545	1.251
T_CNT75	88	0.113	0.739	0.270	0.135	0.125	0.455	0.330
T_CNT95	88	0.235	2.414	0.776	0.483	0.299	1.472	1.173

Table 6  
Thermal Scene Metrics Summarized for Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	70	26.449	40.925	32.543	3.813	28.535	40.655	12.120
TMP_STDV	70	0.353	2.098	1.140	0.553	0.474	1.940	1.465
TMP_MIN	70	25.218	37.747	29.937	3.459	27.080	36.917	9.837
TMP_05	70	25.876	38.698	31.029	3.673	27.746	38.474	10.728
TMP_95	70	27.020	45.332	34.439	4.483	29.310	43.966	14.656
TMP_MAX	70	28.180	46.284	36.019	4.811	29.789	46.071	16.282
T_RNG90	70	0.972	6.683	3.410	1.655	1.375	5.579	4.204
T_SKEW	70	-0.578	1.791	0.257	0.499	-0.401	0.968	1.368
T_ENTRO	70	1.854	3.574	2.890	0.513	2.167	3.490	1.323
T_CLUTTR	70	0.239	2.098	0.794	0.406	0.359	1.482	1.123
T_CNT75	70	0.088	0.541	0.253	0.089	0.170	0.379	0.209
T_CNT95	70	0.235	1.777	0.691	0.324	0.341	1.240	0.899

Table 7

Thermal Scene Metrics Summarized for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
TMP_MEAN	126	27.517	50.433	33.380	6.111	28.165	42.732	14.567
TMP_STDV	126	0.273	4.174	1.208	0.526	0.508	1.806	1.298
TMP_MIN	126	24.678	49.132	30.612	6.333	25.357	40.116	14.759
TMP_05	126	25.832	50.015	31.813	6.307	26.542	40.974	14.433
TMP_95	126	29.555	54.001	35.495	6.025	30.457	45.714	15.258
TMP_MAX	126	29.926	55.891	36.467	6.337	30.932	47.513	16.582
T_RNG90	126	0.717	12.704	3.682	1.585	1.336	5.212	3.876
T_SKEW	126	-2.003	2.190	0.253	0.723	-0.791	0.953	1.744
T_ENTRO	126	1.572	4.151	2.911	0.461	2.112	3.348	1.236
T_CLUTTR	126	0.199	3.244	0.864	0.372	0.395	1.246	0.851
T_CNT75	126	0.113	0.739	0.280	0.111	0.170	0.455	0.285
T_CNT95	126	0.275	2.414	0.694	0.357	0.354	1.246	0.892

Table 8

Thermal Target Metrics Summary for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	175	26.258	50.085	33.073	5.197	28.429	42.002	13.573
T_STD	175	0.000	0.316	0.060	0.056	0.000	0.121	0.121
T_MIN	175	25.739	49.900	31.792	5.149	27.248	40.335	13.087
T_MAX	175	27.155	50.894	34.949	5.267	29.199	43.411	14.212
T_CONTR	175	-1.187	1.655	0.399	0.500	-0.179	1.015	1.194
TCOM_GTP	175	0.016	1.000	0.766	0.290	0.260	0.997	0.736
T_TIR2	175	0.000	24.140	1.490	2.814	0.029	3.605	3.576
THOT_GTP	175	0.222	1.000	0.907	0.135	0.770	1.000	0.230
T_POT	175	10.000	171.000	53.125	44.202	21.000	105.000	84.000

Table 9

Thermal Target Metrics Summary Before Sunrise  
(Night) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	102	26.258	33.293	30.358	1.341	28.558	32.150	3.590
T_STD	102	0.000	0.235	0.065	0.046	0.000	0.122	0.122
T_MIN	102	25.739	32.671	28.961	1.409	27.248	31.207	3.959
T_MAX	102	27.155	38.430	32.586	2.141	29.231	34.905	5.674
T_CONTR	102	-1.086	1.652	0.427	0.441	-0.122	0.853	0.975
TCON_GTP	102	0.016	1.000	0.807	0.260	0.364	0.992	0.628
T_TIR2	102	0.001	12.177	1.028	1.670	0.054	2.448	2.394
THOT_GTP	102	0.348	1.000	0.918	0.107	0.788	1.000	0.212
T_POT	102	10.000	171.000	61.676	51.554	10.000	171.000	161.000

Table 10

Thermal Target Metrics Summary After Sunrise  
(Day) for Testing and Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	73	26.802	50.085	36.866	6.141	28.025	44.375	16.350
T_STD	73	0.000	0.319	0.052	0.068	0.000	0.115	0.115
T_MIN	73	26.149	49.900	35.748	5.838	27.432	42.177	14.745
T_MAX	73	27.669	50.894	38.250	6.454	28.744	46.284	17.541
T_CONTR	73	-1.187	1.655	0.361	0.572	-0.227	1.133	1.360
TCON_GTP	73	0.056	1.000	0.709	0.320	0.188	1.000	0.811
T_TIR2	73	0.000	24.140	2.134	3.808	0.021	5.895	5.874
THOT_GTP	73	0.222	1.000	0.892	0.165	0.714	1.000	0.286
T_POT	73	10.000	136.000	41.178	27.295	21.000	55.000	34.000



Table 11

Thermal Target Metrics Summarized for Training Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	81	26.258	43.217	32.995	4.222	28.025	41.318	13.293
T_STD	81	0.000	0.122	0.046	0.041	0.000	0.114	0.114
T_MIN	81	25.739	41.122	31.846	3.924	27.432	39.047	11.615
T_MAX	81	27.155	45.571	34.583	4.416	28.744	42.732	13.989
T_CONTR	81	-1.187	1.652	0.393	0.521	-0.217	1.041	1.258
TCON_GTP	81	0.056	1.000	0.758	0.294	0.294	0.997	0.703
T_TIR2	81	0.001	24.140	1.998	3.706	0.037	5.353	5.316
THOT_GTP	81	0.357	1.000	0.913	0.126	0.716	1.000	0.284
T_POT	81	10.000	105.000	44.407	23.854	10.000	55.000	45.000

Table 12

Thermal Target Metrics Summarized for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
T_MEAN	94	27.301	50.085	33.140	5.932	28.558	43.604	15.046
T_STD	94	0.000	0.316	0.071	0.065	0.000	0.121	0.121
T_MIN	94	26.487	49.900	31.746	6.030	27.248	41.661	14.413
T_MAX	94	28.379	50.894	35.264	5.908	29.231	44.854	15.624
T_CONTR	94	-1.086	1.655	0.405	0.483	-0.174	0.939	1.113
TCON_GTP	94	0.016	0.999	0.774	0.287	0.242	0.997	0.755
T_TIR2	94	0.000	8.725	1.051	1.604	0.020	2.869	2.849
THOT_GTP	94	0.222	1.000	0.902	0.142	0.772	1.000	0.228
T_POT	94	10.000	171.000	60.638	55.161	21.000	171.000	150.000

Table 13

Visible Scene Metrics Summary for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
V_MEAN	51	44.800	2951.400	2182.030	935.435	232.100	2789.100	2557.000
V_STD	51	10.600	692.280	370.099	166.330	58.700	543.250	484.550
V_CV	51	0.123	0.314	0.179	0.045	0.138	0.250	0.112
V_PER05	51	31.000	2241.000	1539.900	689.404	143.000	2038.000	1895.000
V_PER95	51	64.000	4064.000	2743.750	1165.290	337.000	3489.000	3152.000
V_RNG90	51	33.000	2129.000	1203.840	538.423	194.000	1709.000	1515.000
V_SKEW	51	-0.589	1.568	-0.084	0.507	-0.490	0.391	0.881
V_ENTRO	51	3.701	7.844	6.988	1.064	5.465	7.623	2.158
V_CNT75	51	2.000	111.000	69.490	28.442	17.000	94.000	77.000
V_CNT95	51	5.000	306.000	208.784	87.444	38.000	280.000	242.000
VN_CNT95	51	0.063	0.185	0.101	0.025	0.079	0.120	0.041

Table 14

Visible Target Metrics Summary for Testing Imagery

Variable	N	Minimum	Maximum	Mean	Std Dev	P10	P90	80% RANGE (P90-P10)
V_MEAN	24	264.320	2716.220	2159.800	707.262	476.910	2623.710	2146.800
V_STD	24	29.790	610.640	403.432	156.307	114.140	560.490	446.350
V_MIN	24	217.000	1803.000	1299.960	445.467	343.000	1682.000	1339.000
V_MAX	24	349.000	4811.000	3202.540	1118.080	813.000	4244.000	3431.000
V_TIR2	24	0.000	4.499	1.057	1.309	0.000	3.473	3.473
DARK_CON	24	-190.000	369.000	116.833	165.887	-65.000	331.000	396.000
VCON_GTP	24	0.057	0.991	0.669	0.317	0.206	0.981	0.776
VDRK_GTP	24	0.579	0.999	0.946	0.110	0.733	0.998	0.265
V_POT	24	171.000	351.000	274.000	70.956	171.000	351.000	180.000

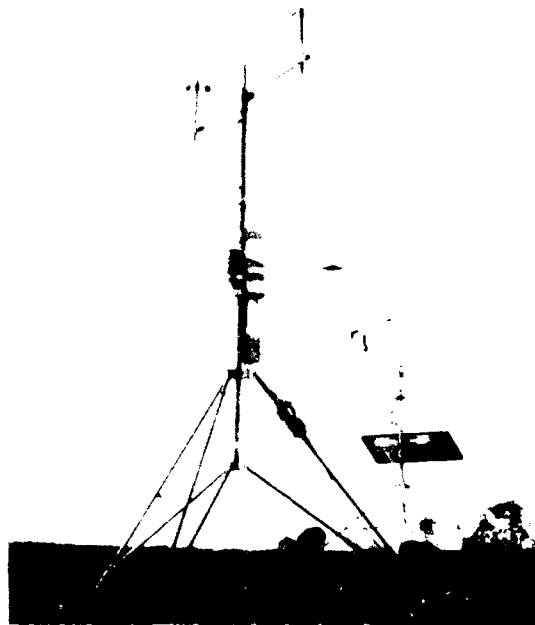


Figure 1. Automated portable weather station at Cibola site 9



Figure 2. Hulk ETA-4 instrumented with radiometers

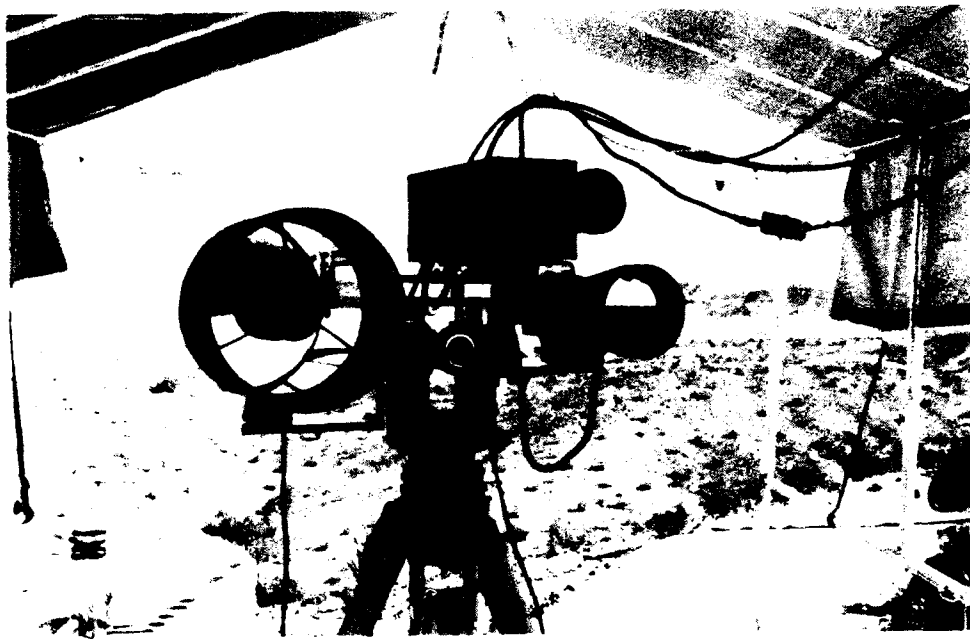


Figure 3. WES sensor suite boresighted with theodolite

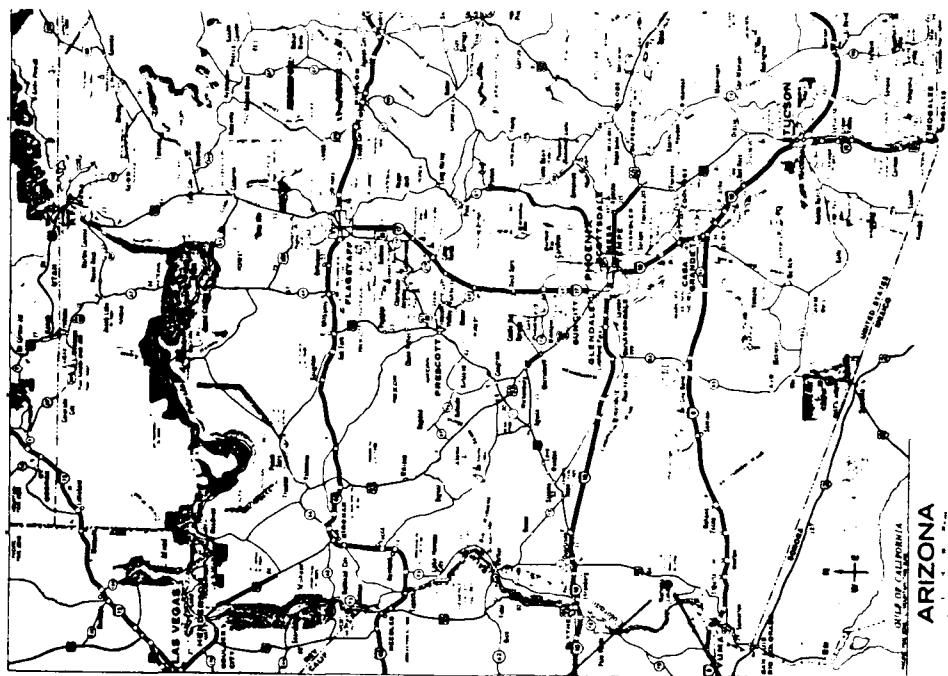
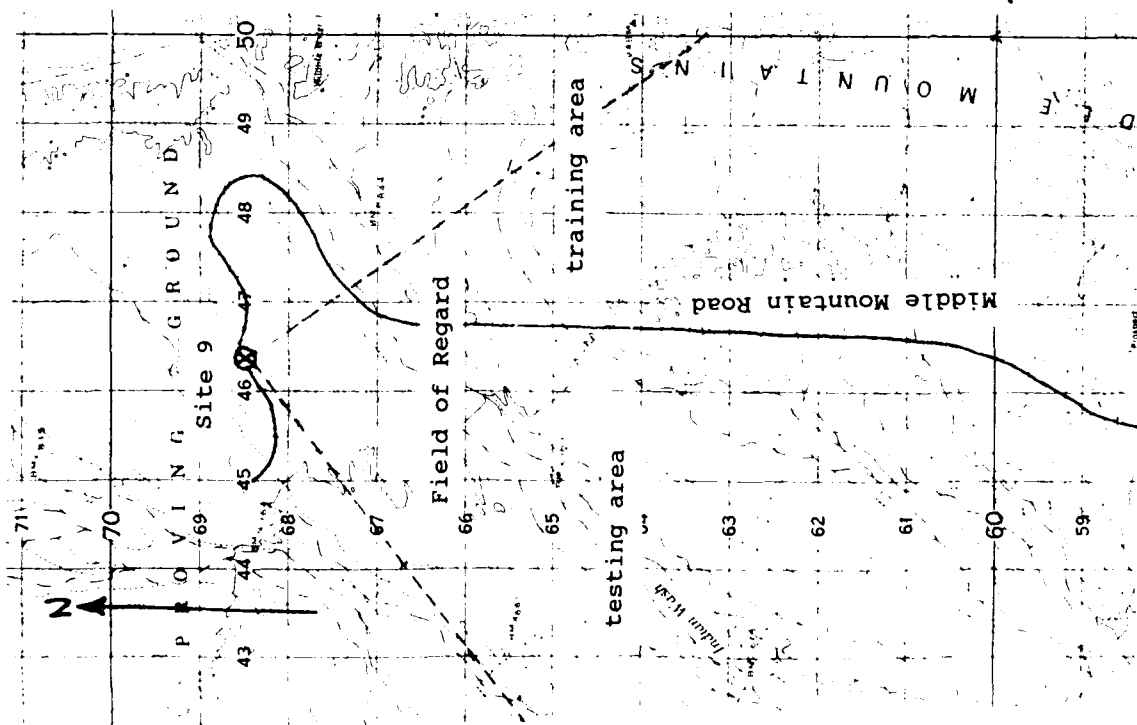


Figure 4. Location and vicinity maps of Cibola Range, site 9

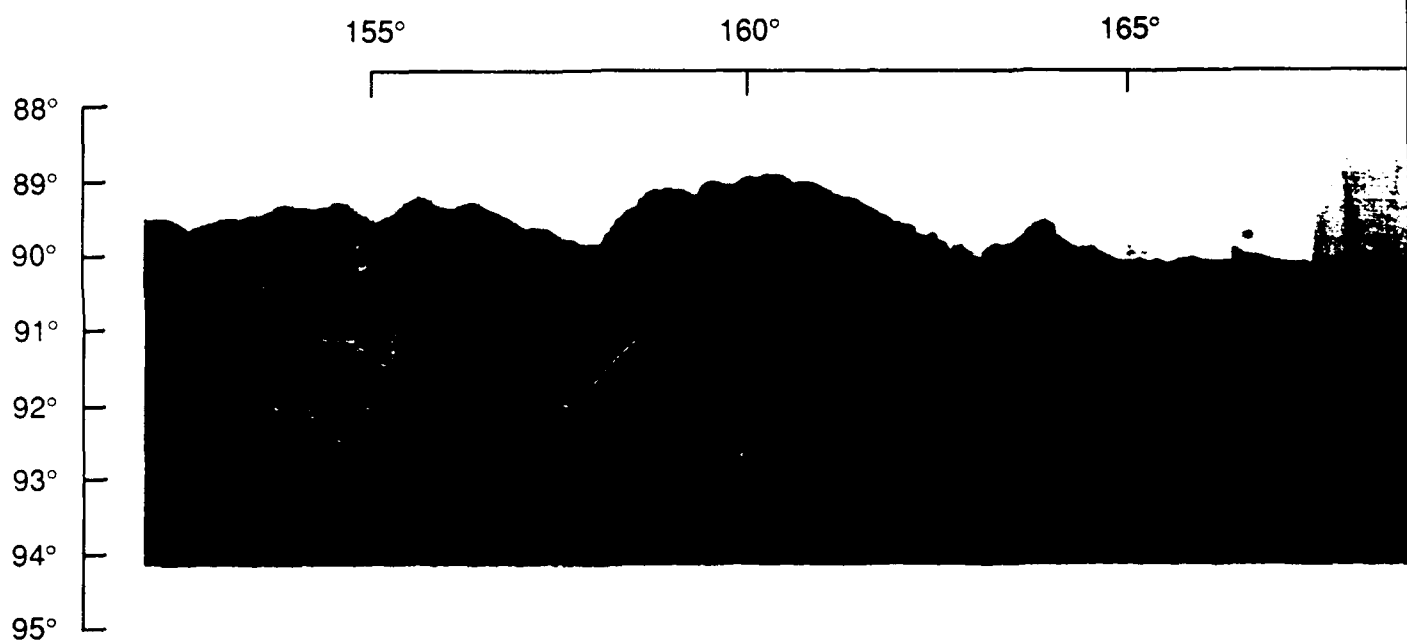


Figure 5. Photomosaic of field of regard, training area

172

170°

175°

180°

185°

88°

89°

90°

91°

92°

93°

94°

95°

202

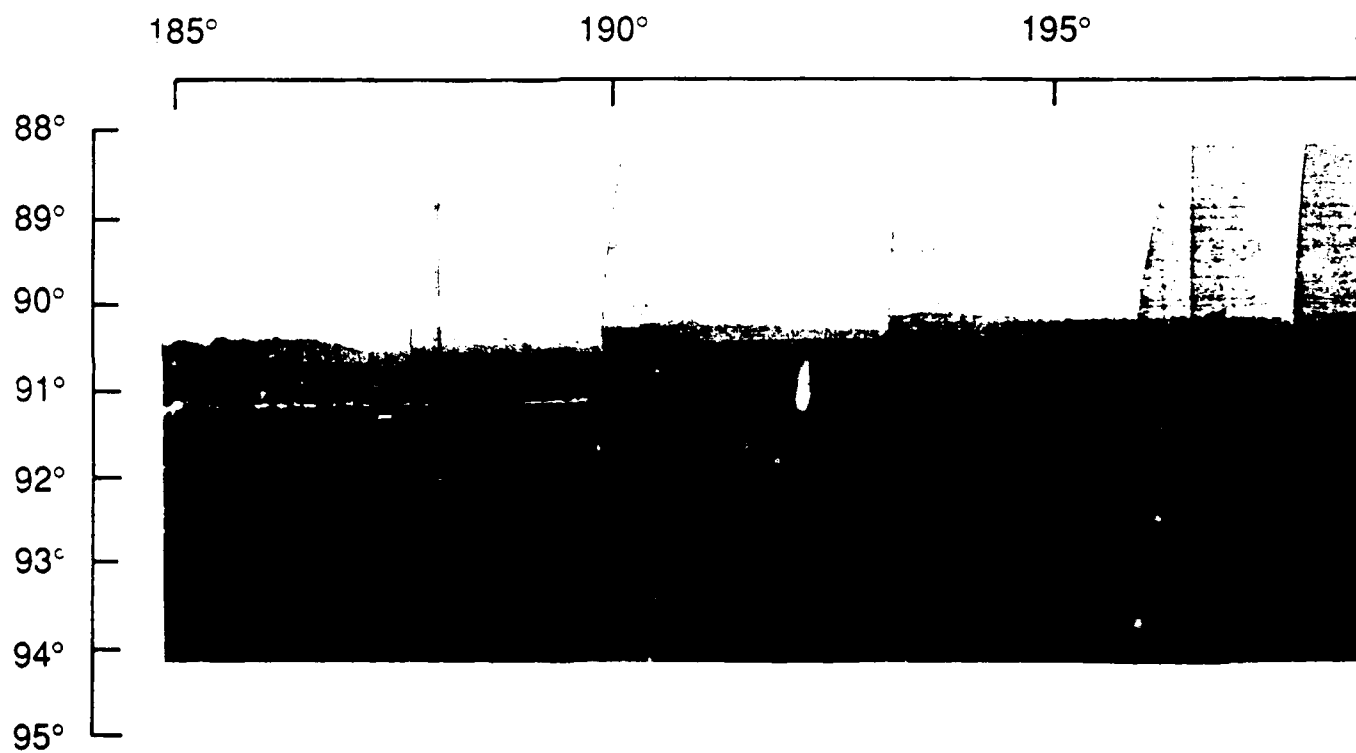


Figure 6. Photomosaic of field of regard, main testing area



200°

205°

210°

88°

89°

90°

91°

92°

93°

94°

95°

20/2

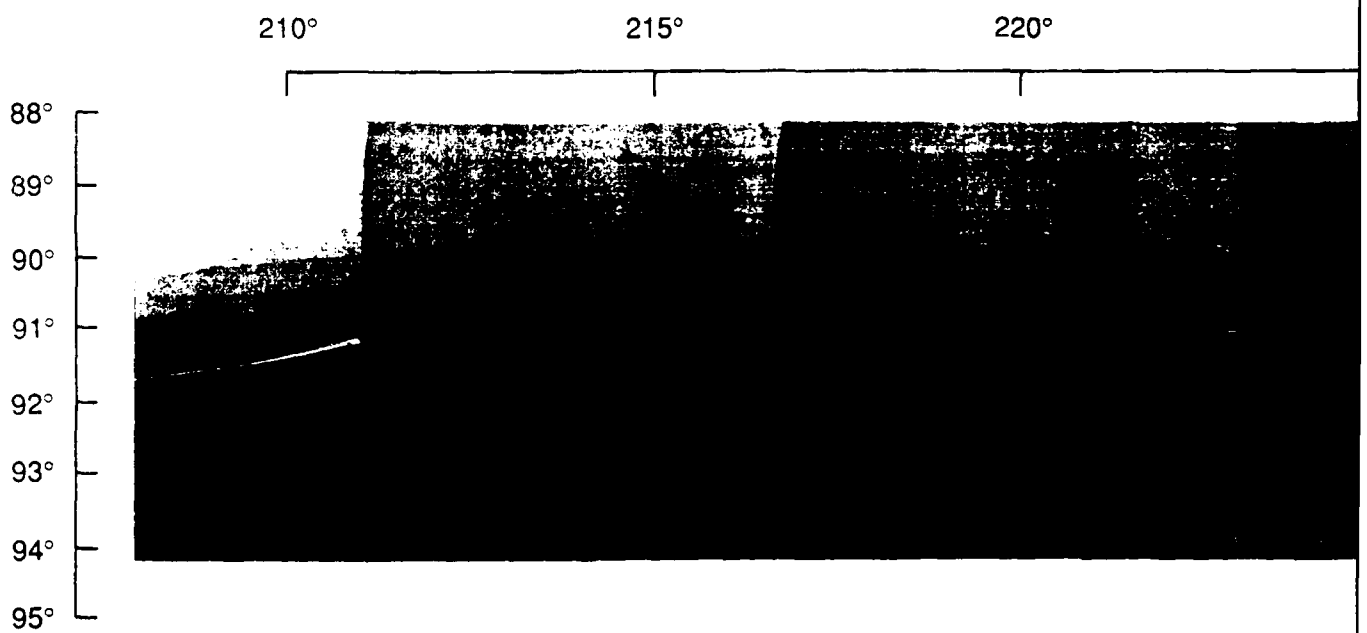


Figure 7. Photomosaic of field of regard, testing area, configurations 7 and 8

225°

230°

235°

240°

88°

89°

90°

91°

92°

93°

94°

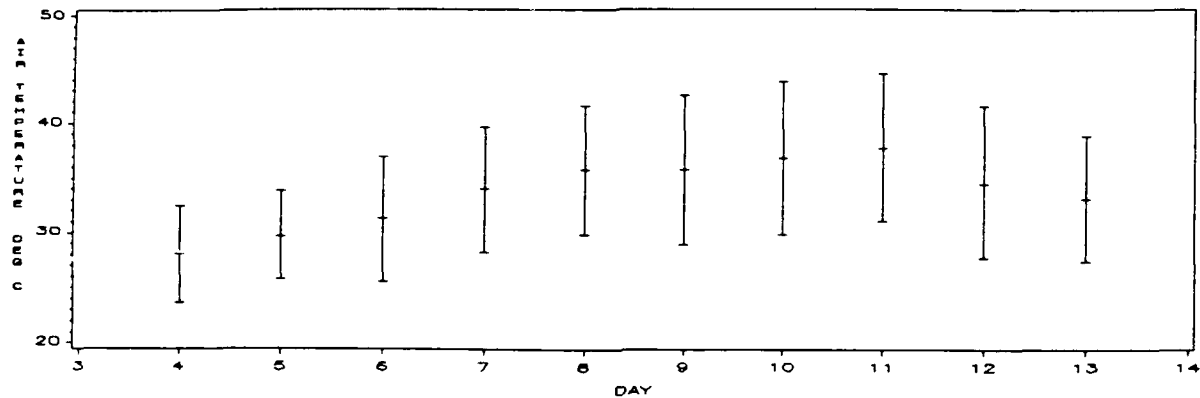
95°

s 7 and 8

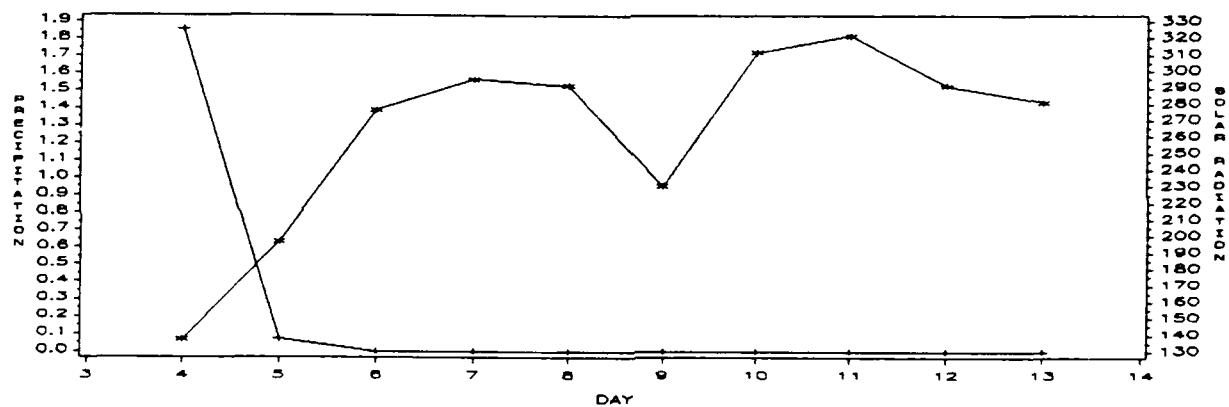
243

SEPTEMBER 4 - SEPTEMBER 13

a) MEAN AIR TEMPERATURE BOUNDED BY MAXIMUM AND MINIMUM VALUE

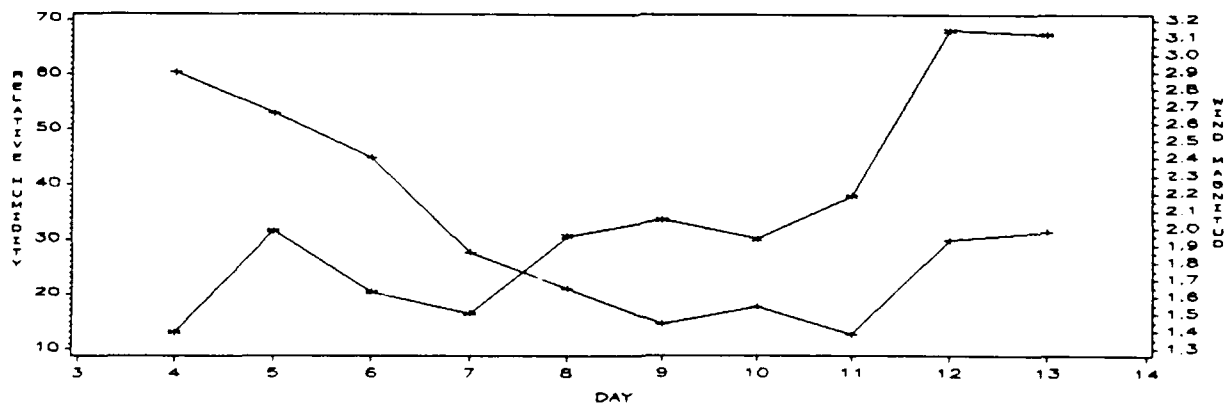


b) ACCUMULATED PRECIPITATION / MEAN SOLAR RADIATION



LEGEND: + + PRECIPITATION (INCHES) = = SOLAR RADIATION (W/M<sup>2</sup>)

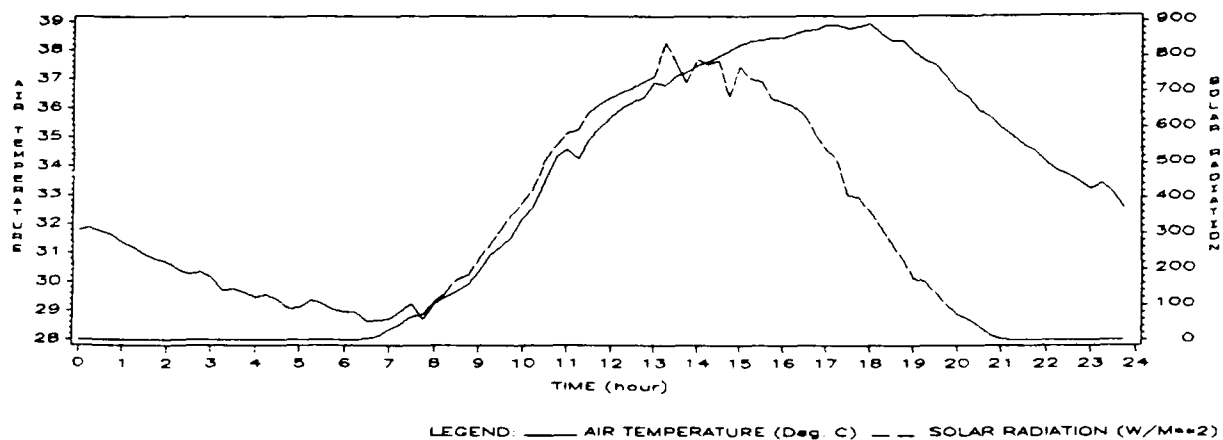
c) MEAN RELATIVE HUMIDITY / MEAN WIND MAGNITUDE



LEGEND: + + RELATIVE HUMIDITY (%) = = WIND MAGNITUDE (M/S)

Figure 8. Summary of daily meteorological conditions, 4-13 September 1990

a) AIR TEMPERATURE / SOLAR RADIATION



b) RELATIVE HUMIDITY / WIND MAGNITUDE

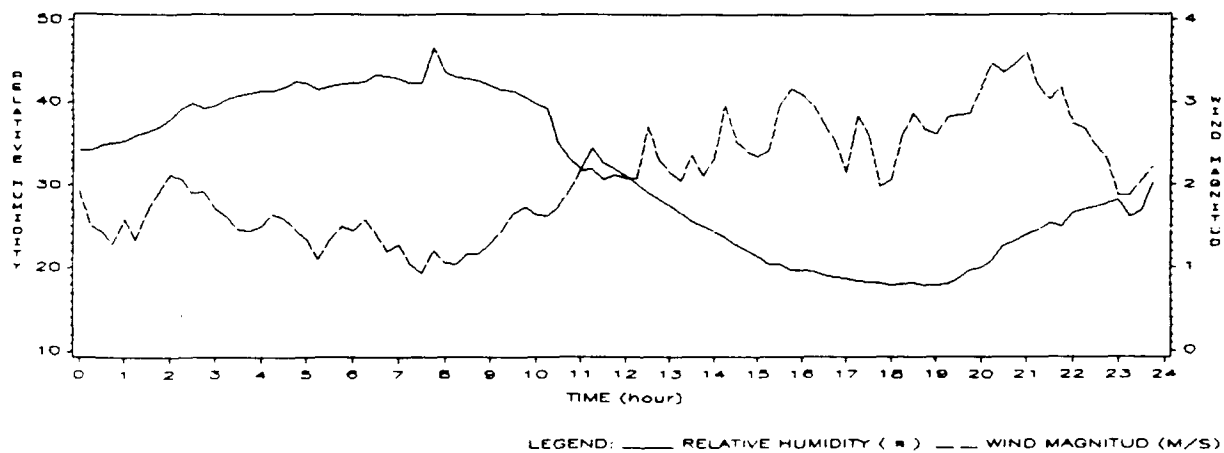


Figure 9. Averaged diurnal meteorological conditions, 4-13 September 1990

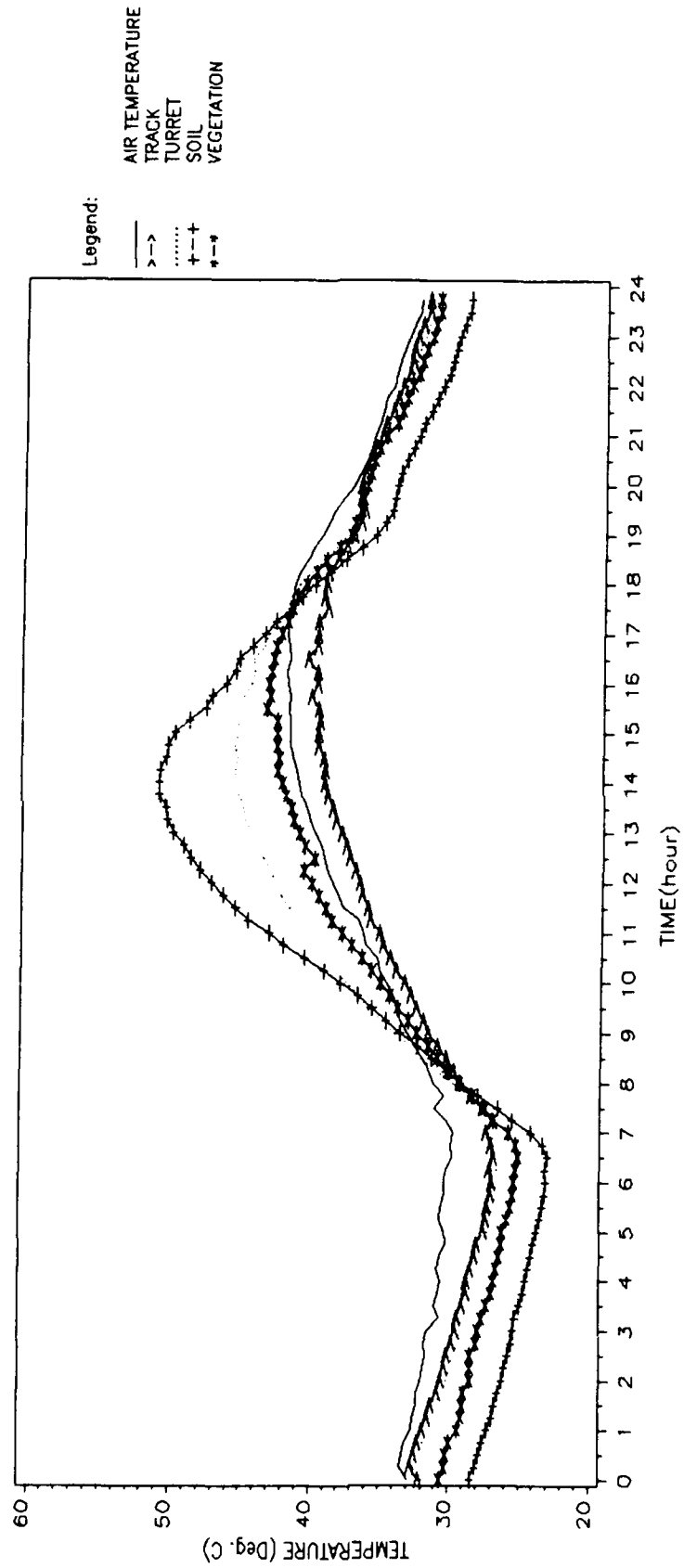
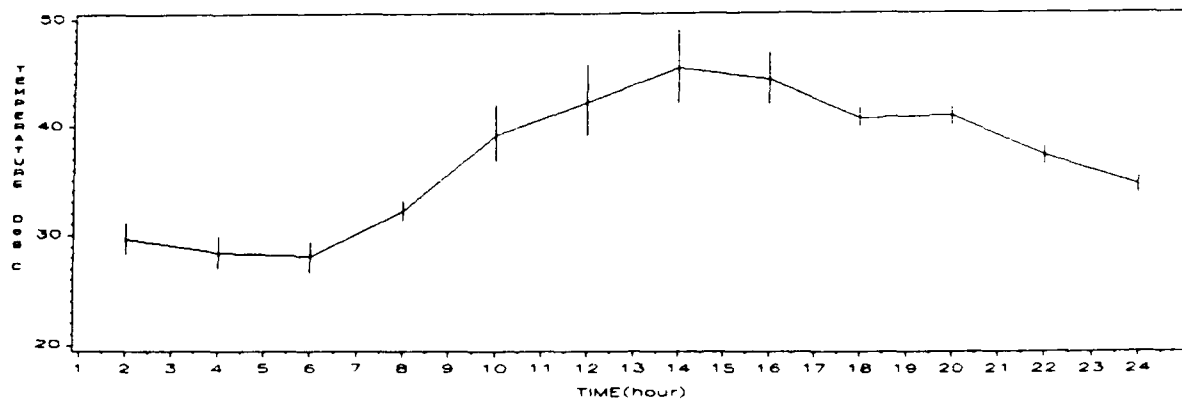
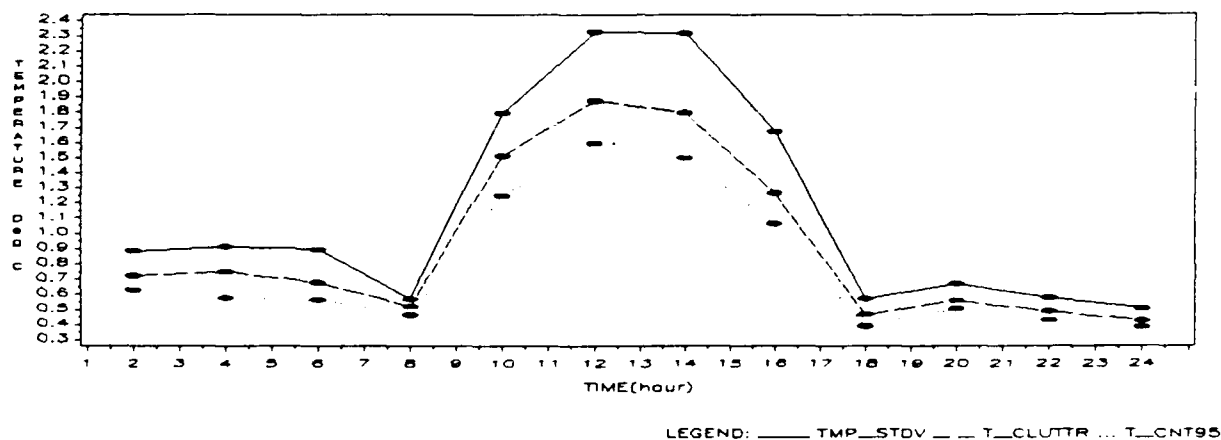


Figure 10. Averaged diurnal radiometric temperatures of hulk target and background features

a) Image mean(TMP\_MEAN) bounded by 5(TMP\_05) and 95(TMP\_95) percentile temperature



b) Scene feature metrics: standard deviation(TMP\_STDV), Georgia Tech Clutter metric(T\_CLUTTR) and 95 percentile target-sized contrast(T\_CNT95)



c) Temperature distribution metrics: skewness(T\_SKEW) and entropy(T\_ENTRO)

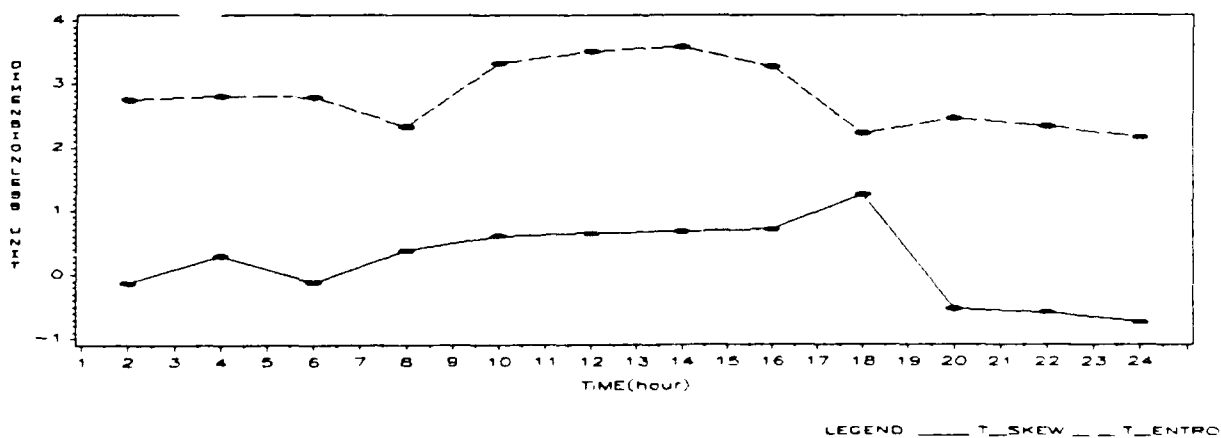


Figure 11. Effects of time of day on thermal scene metrics, for 13 September baseline imagery

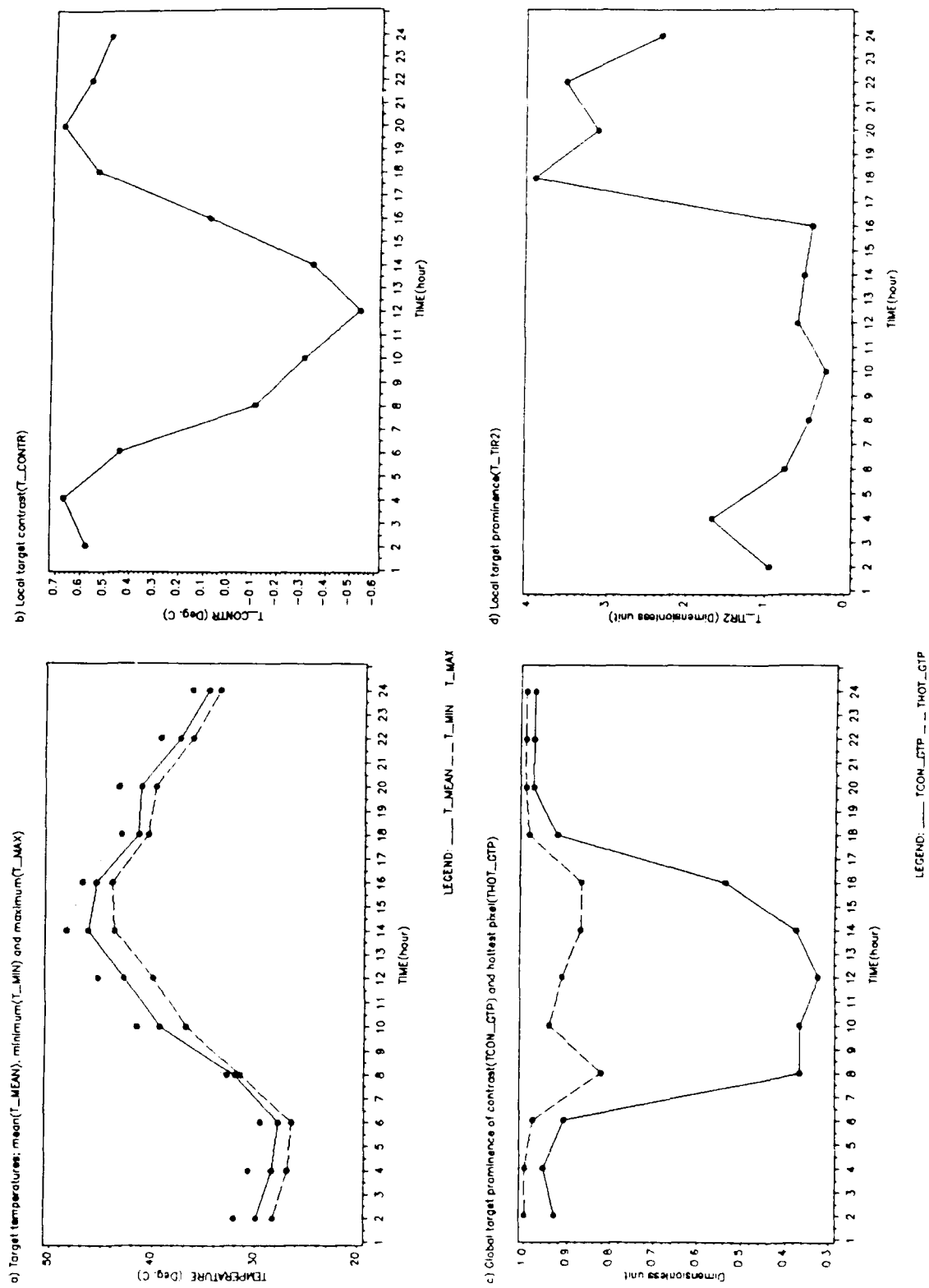
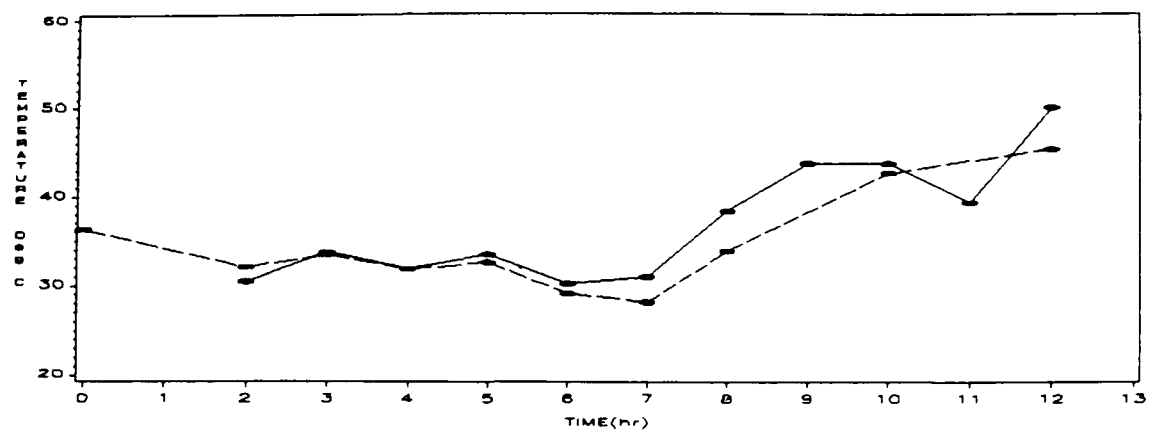


Figure 12. Effects of time of day on thermal target metrics, for 13 September baseline imagery

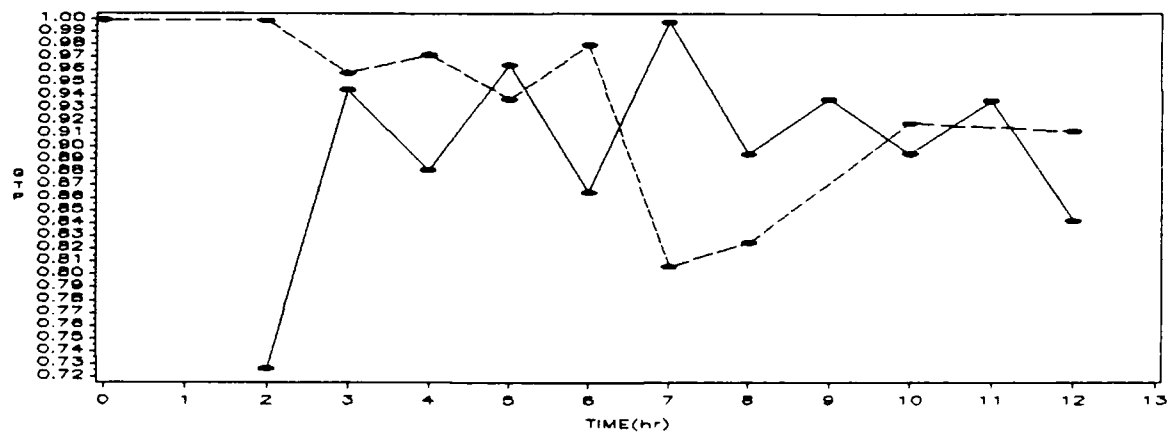




d) Target maximum temperature(T\_MAX)



e) Hottest pixel(THOT\_GTP)



f) Local target prominence(T\_TIR2)

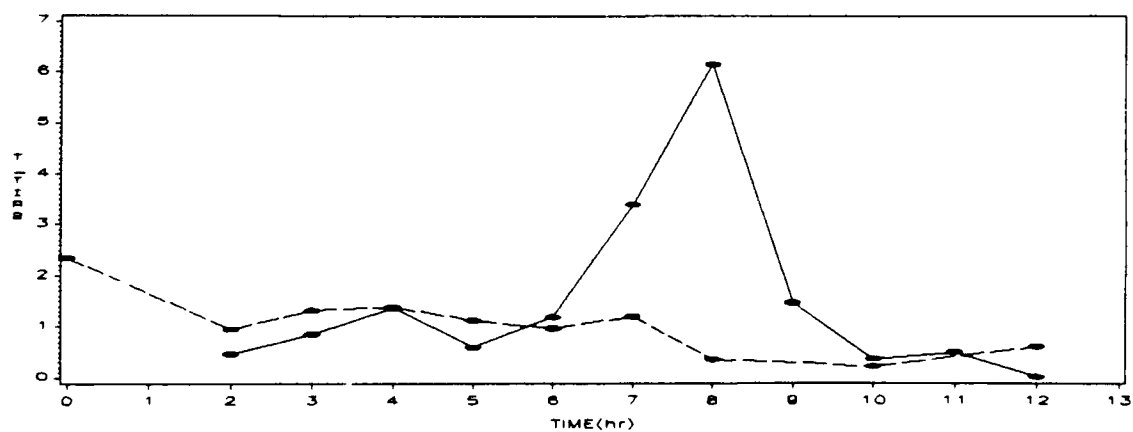


Figure 13. (Sheet 2 of 2)

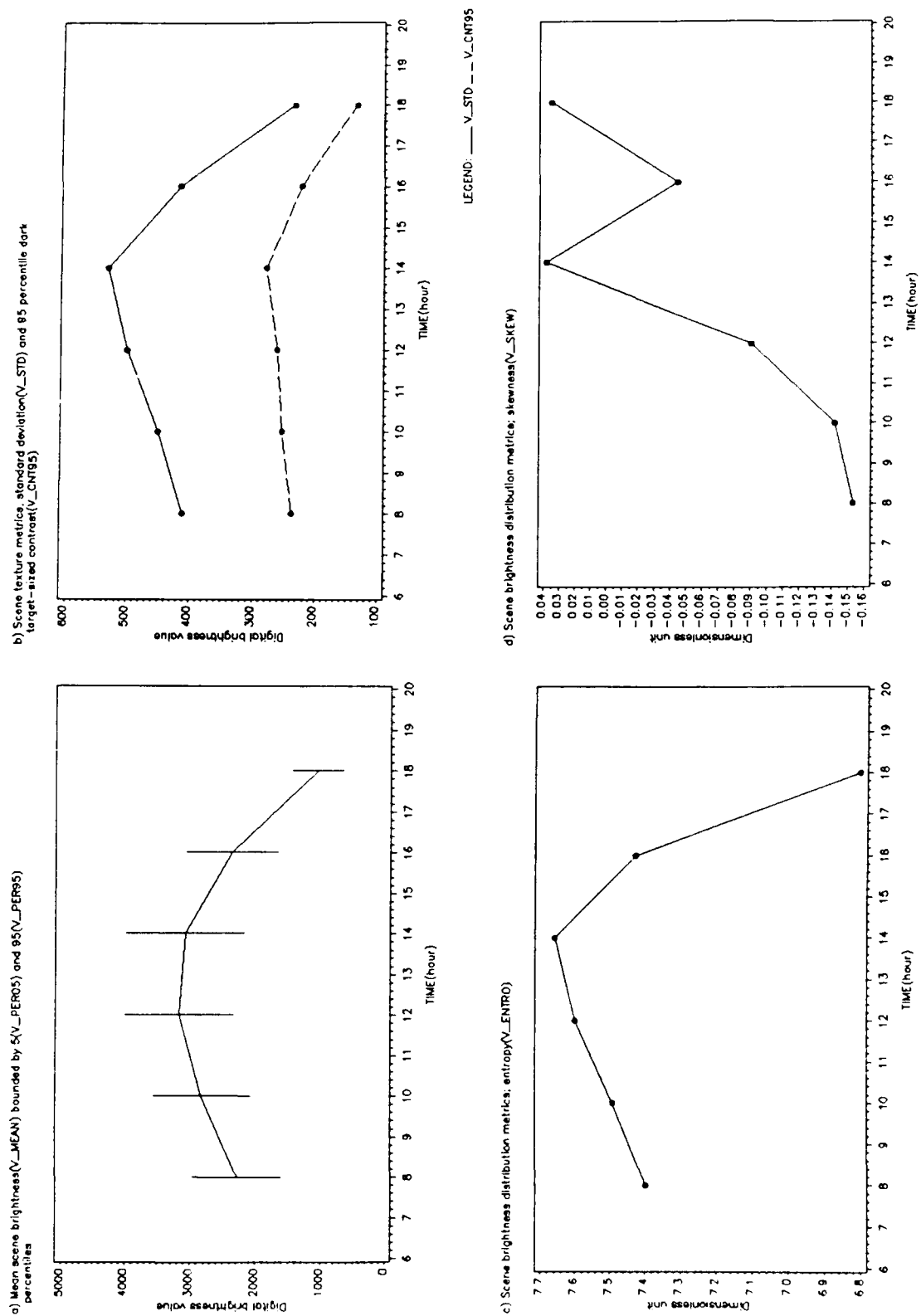


Figure 14. Effect of time of day on scene metrics in the visible band, for 13 September baseline imagery

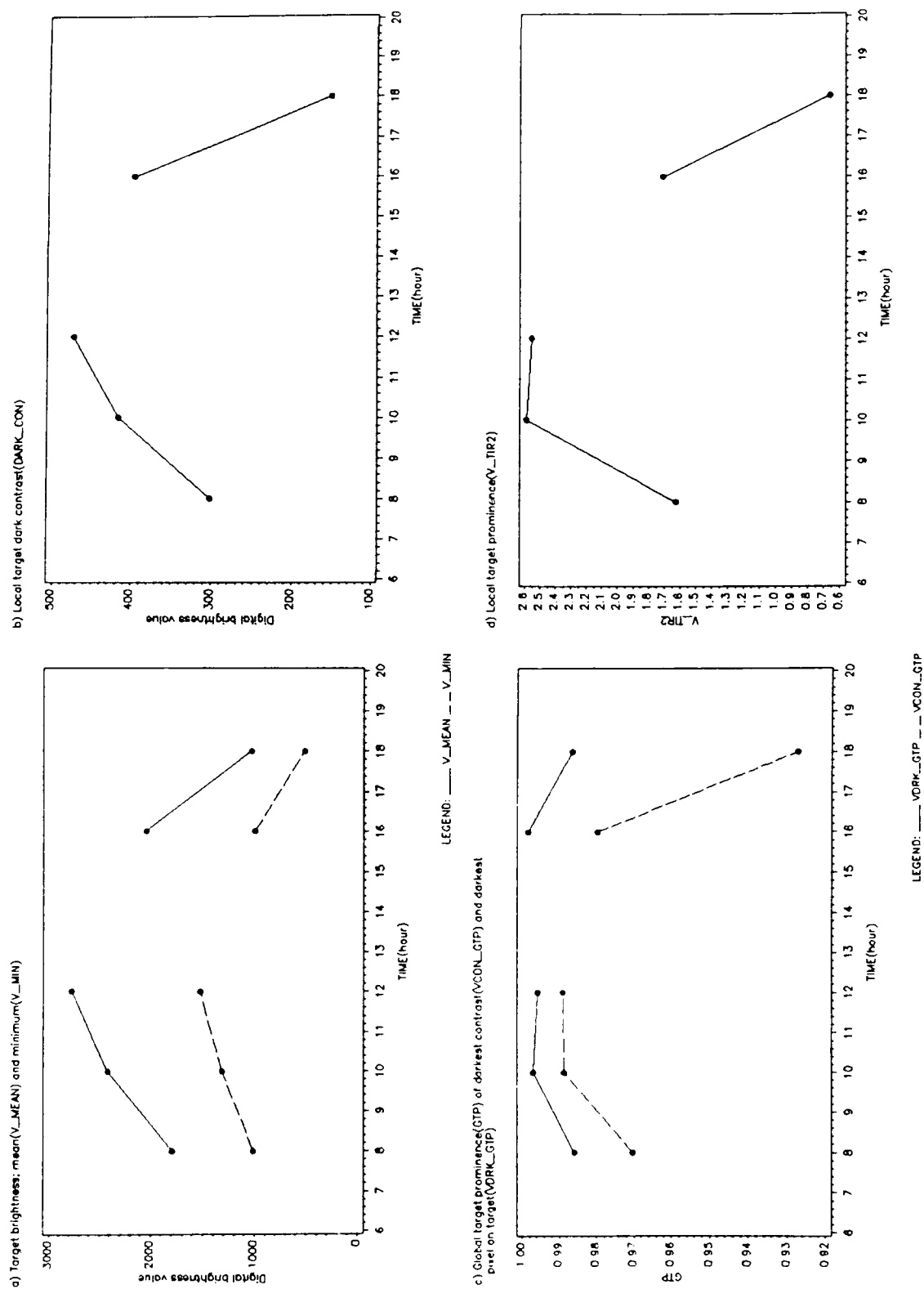
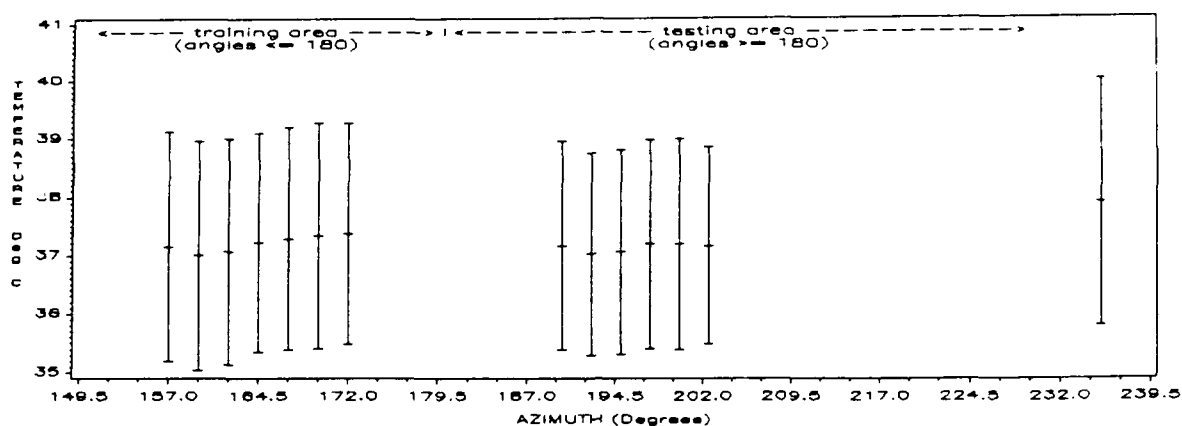
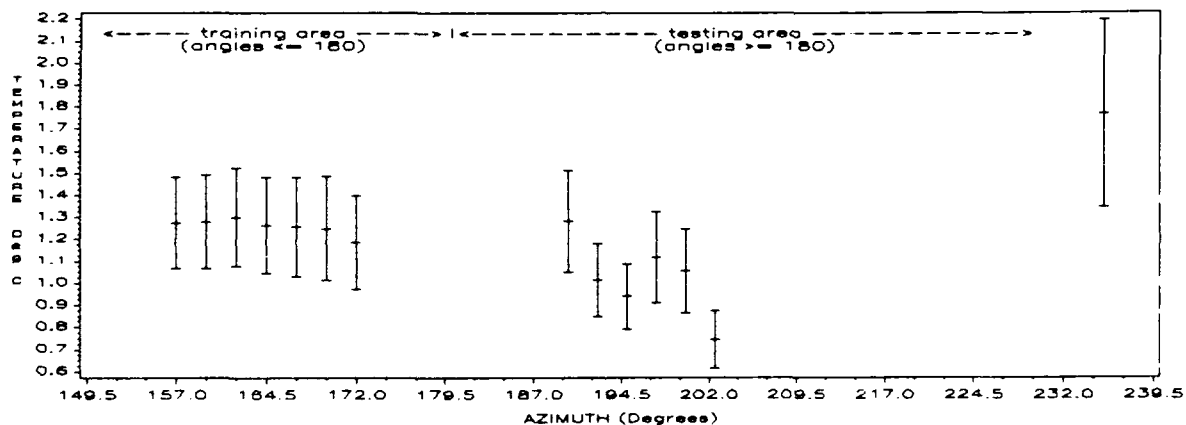


Figure 15. Effects of time of day on visible target metrics, for 13 September baseline imagery

a) Image mean(TMP\_MEAN) bounded by a single standard error



b) Scene texture metric, standard deviation(TMP\_STDV), bounded by a single standard error



c) Scene texture metric, Georgia Tech Clutter(T\_CLUTTR), bounded by a single standard error

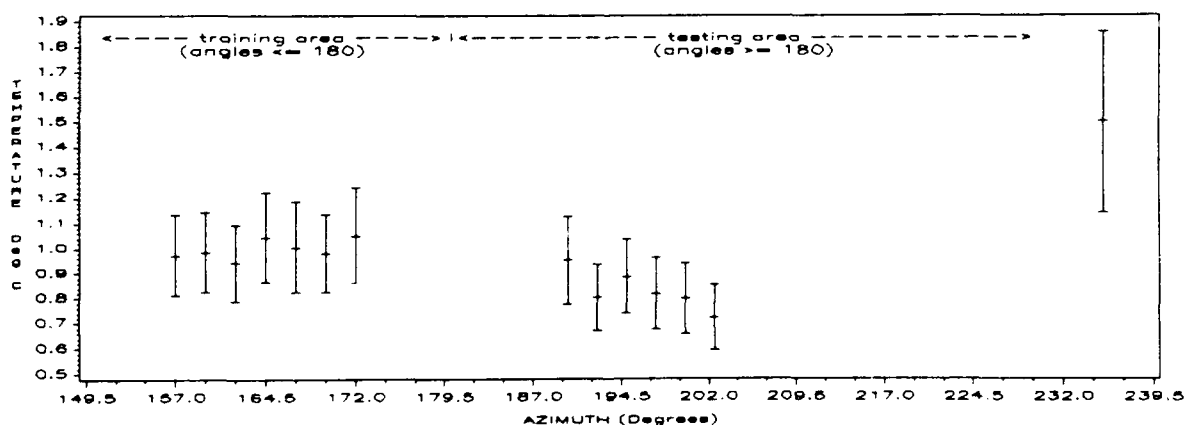
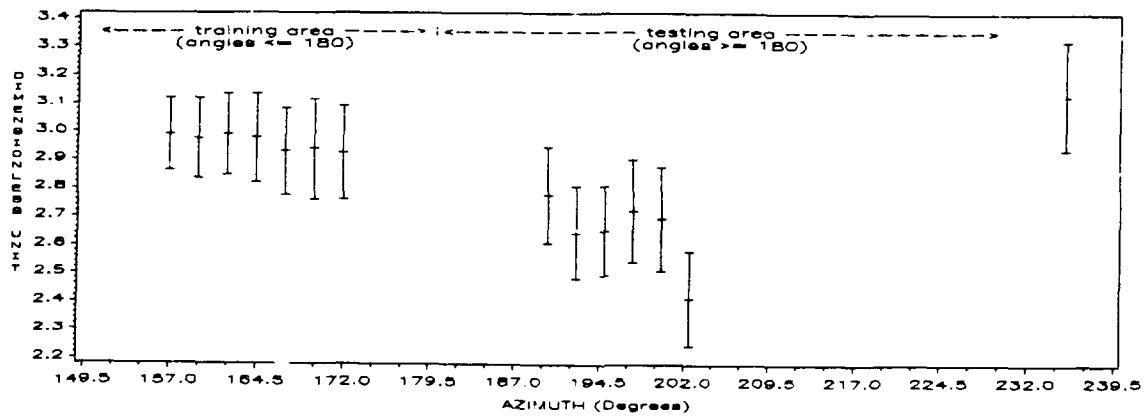


Figure 16. Comparison of thermal scene metrics by view azimuth for 13 September baseline imagery. Azimuth angles less than 180 deg represent training areas, those greater than 180 deg represent test areas (Sheet 1 of 2)

d) Temperature distribution metric, entropy(T\_ENTRO), bounded by a single standard error



e) Scene texture metric 95 percentile target-sized contrast(T\_CNT95), bounded by a single standard error

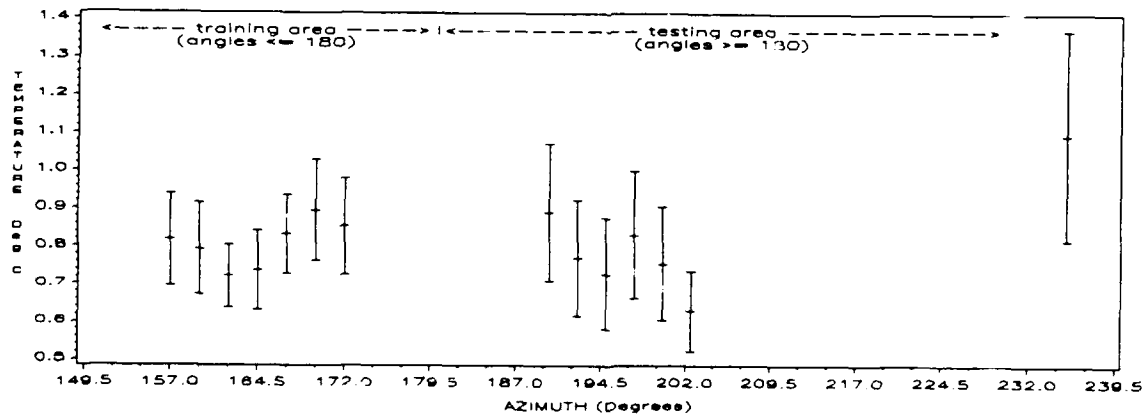


Figure 16. (Sheet 2 of 2)

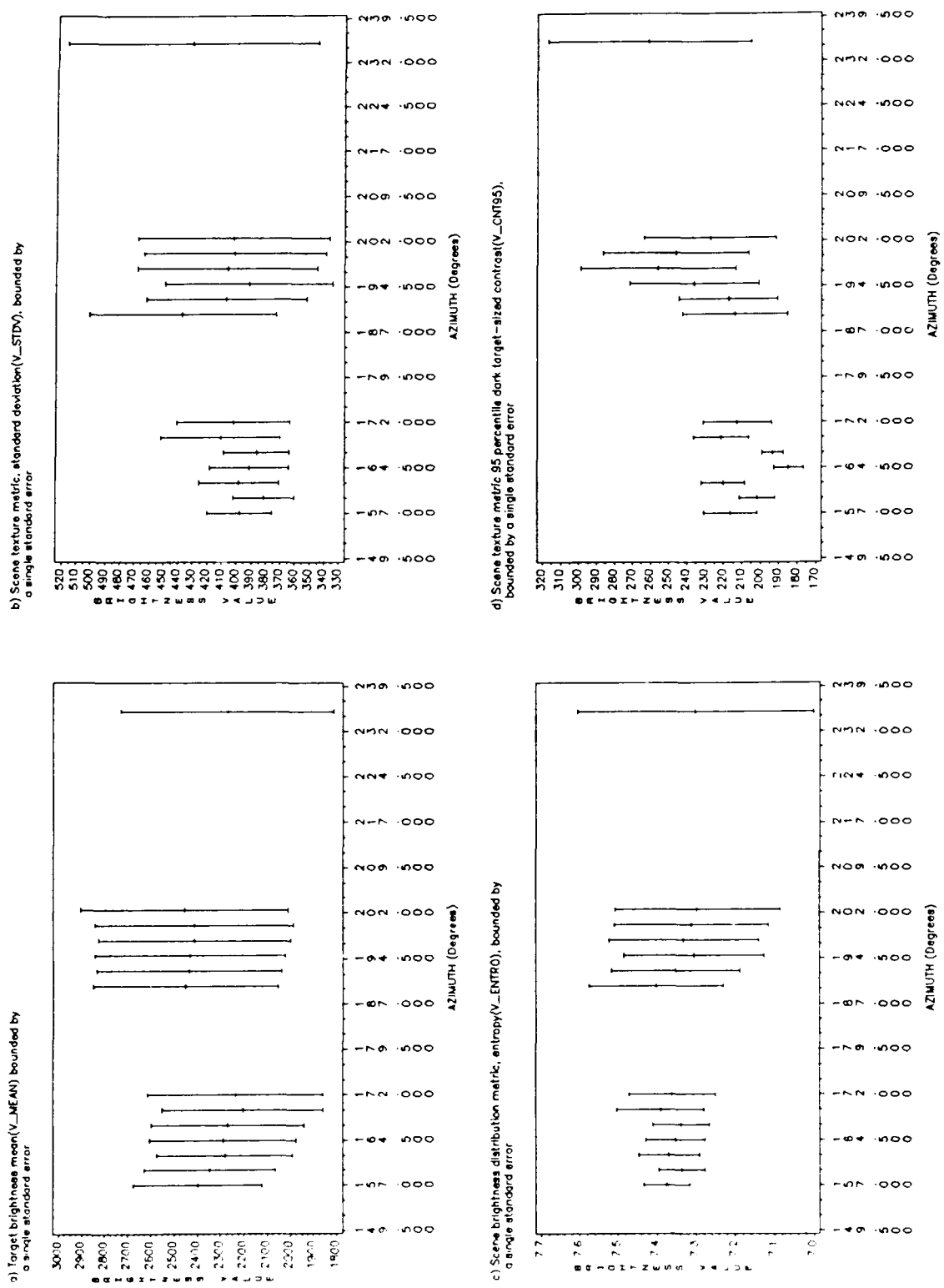
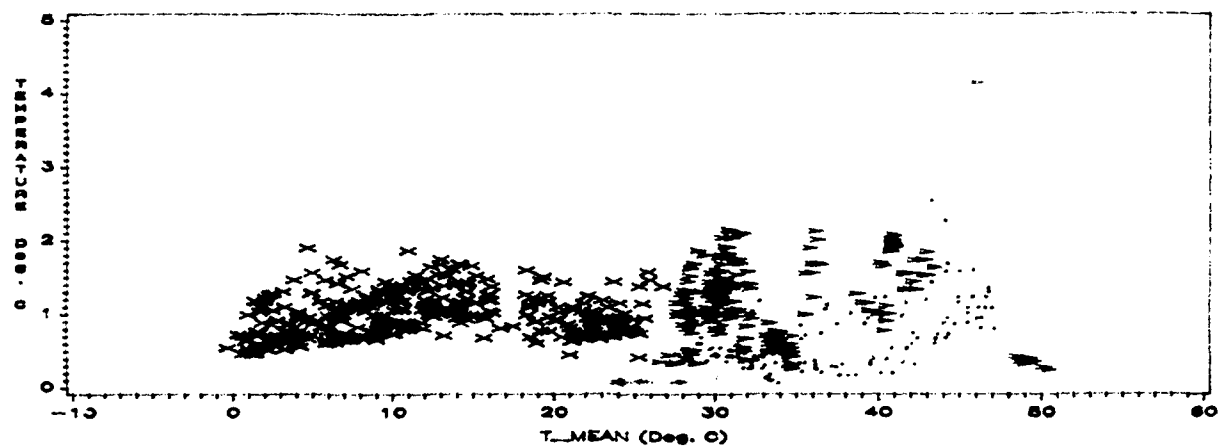
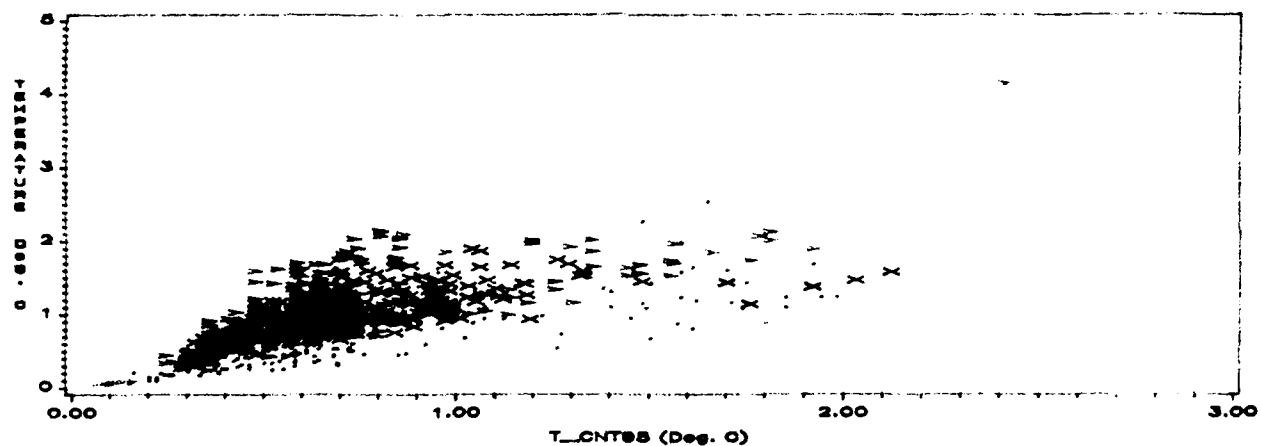


Figure 17. Comparison of visible scene metrics by view azimuth for 13 September baseline imagery. Azimuth angles less than 180 deg represent training areas, those greater than 180 represent testing areas

a) Target standard deviation(T\_STD) versus target mean temperature(T\_MEAN)



b) Target standard deviation(T\_STD) versus 95 percentile dark target-sized contrast(T\_CNT95)

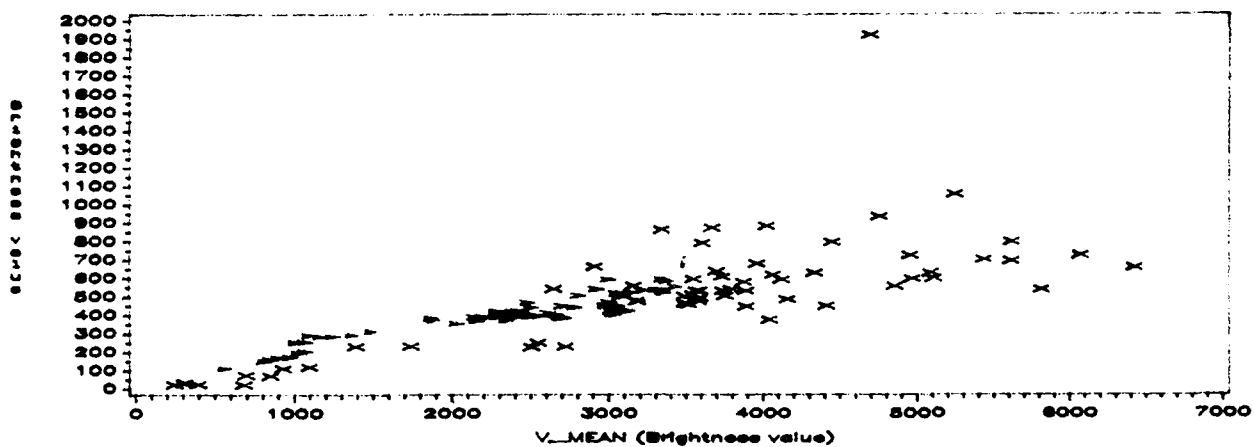


Legend: DEM/VAL (RED >) Ft. Hunter Liggett (BLACK X) YPG (GREEN .) Orlando (YELLOW +)

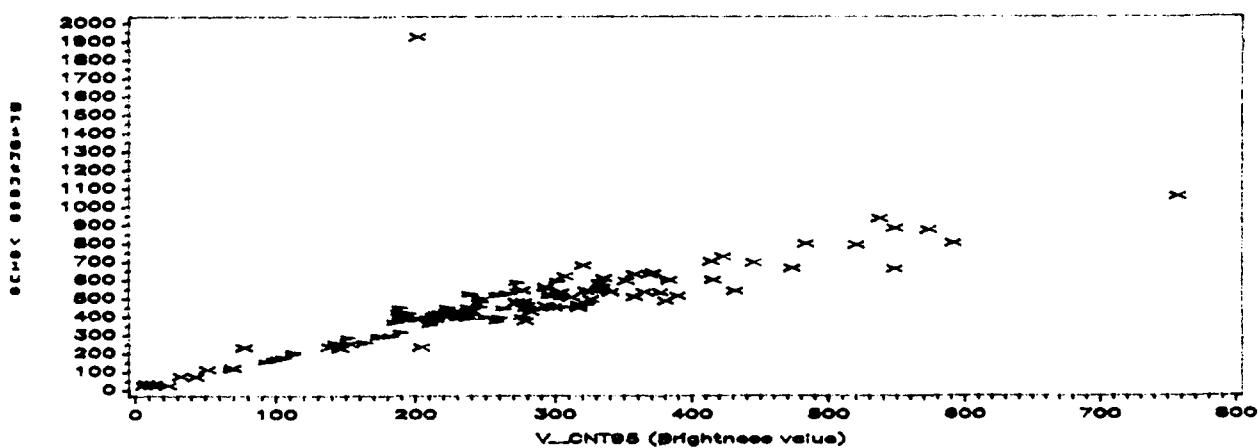
Figure 18. Thermal scene metrics comparison for several ATR test sites using baseline imagery



a) Scene texture metrics; standard deviation(V\_STD) versus mean(V\_MEAN)



b) Scene texture metrics; standard deviation(T\_STD) versus 95 percentile dark target-sized contrast(V\_CNT95)



Legend: DEM/VAL (RED >>>) MFSD (BLACK xxx)

Figure 19. Visible scene metrics comparison for DEM/VAL site and Fort Hunter Liggett (MSFD) site using baseline imagery

Legend: DEN/VAL (RED >>>) MFSD (BLACK XXX)

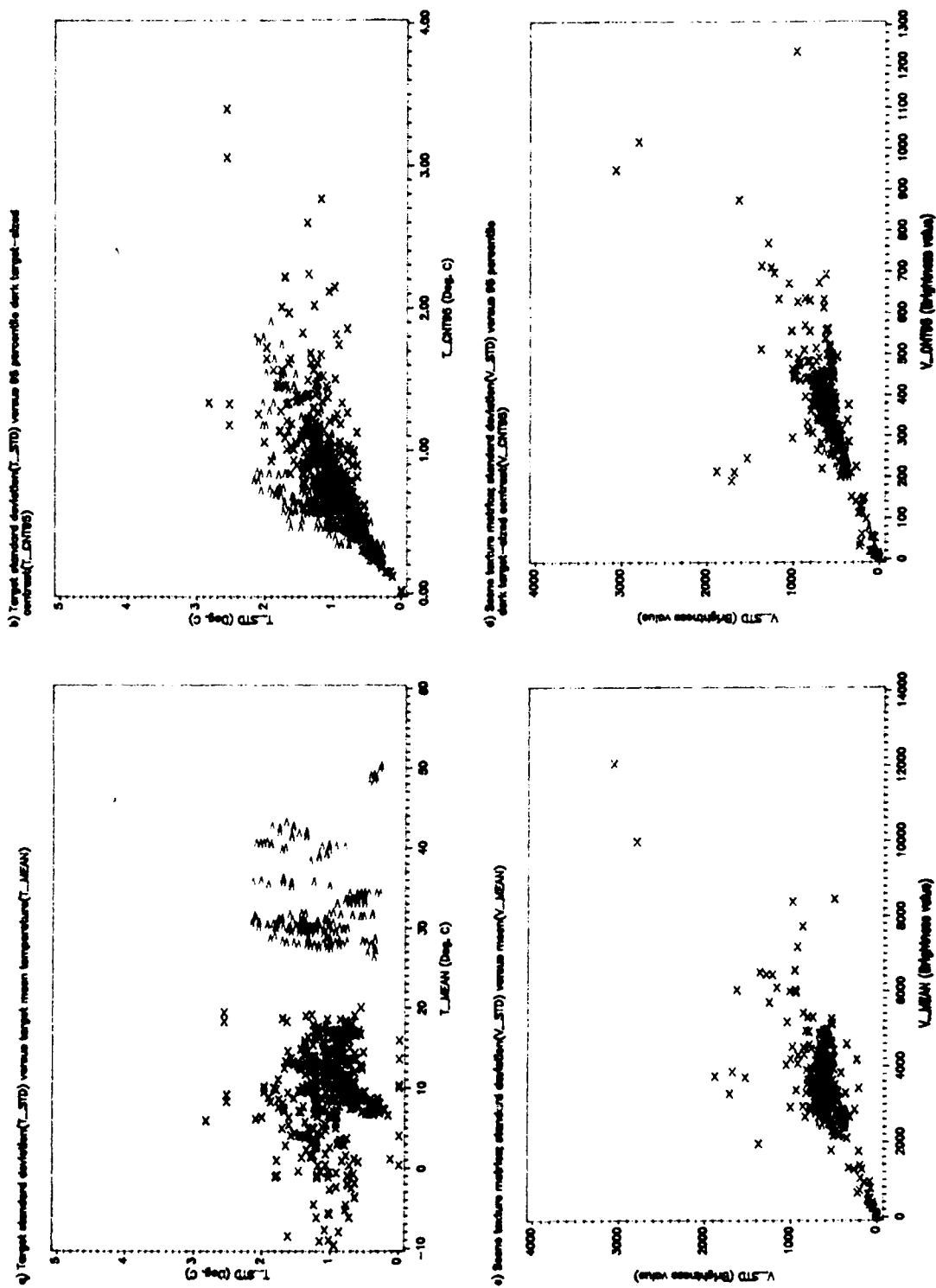


Figure 20. Thermal and visible scene metrics for system testing at Fort Hunter Liggett (MSFD)

APPENDIX A: METEOROLOGICAL AND RADIOMETRIC DATA

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSINES & TREES (Deg. C)
02SEP90:10:15	.	.	.	.	.	.	30.03	29.35	42.68	.
02SEP90:10:30	.	.	.	.	.	.	30.58	30.30	44.21	.
02SEP90:10:45	.	.	.	.	.	.	30.32	30.03	44.72	.
02SEP90:11:00	.	.	.	.	.	.	31.33	31.30	46.62	.
02SEP90:11:15	.	.	.	.	.	.	31.83	31.73	48.27	.
02SEP90:11:30	.	.	.	.	.	.	31.98	32.26	49.07	.
02SEP90:11:45	.	.	.	.	.	.	32.61	32.55	50.81	.
02SEP90:12:00	.	.	.	.	.	.	33.01	33.18	51.94	.
02SEP90:12:15	.	.	.	.	.	.	33.28	33.35	52.72	.
02SEP90:12:30	.	.	.	.	.	.	33.67	33.28	54.06	.
02SEP90:12:45	.	.	.	.	.	.	33.17	32.33	54.08	.
02SEP90:13:00	.	.	.	.	.	.	35.02	34.27	55.30	.
02SEP90:13:15	.	.	.	.	.	.	35.35	34.38	56.36	.
02SEP90:13:30	.	.	.	.	.	.	35.72	34.95	56.78	.
02SEP90:13:45	.	.	.	.	.	.	36.30	35.14	57.17	.
02SEP90:14:00	.	.	.	.	.	.	36.83	35.44	57.50	.
02SEP90:14:15	.	.	.	.	.	.	36.56	35.56	56.62	.
02SEP90:14:30	.	.	.	.	.	.	36.66	34.78	55.91	.
02SEP90:14:45	.	.	.	.	.	.	37.50	35.73	55.72	.
02SEP90:15:00	.	.	.	.	.	.	38.22	36.35	55.02	.
02SEP90:15:15	.	.	.	.	.	.	38.91	37.37	54.66	.
02SEP90:15:30	.	.	.	.	.	.	38.97	37.45	55.00	.
02SEP90:15:45	.	.	.	.	.	.	39.13	37.25	54.79	.
02SEP90:16:00	.	.	.	.	.	.	38.85	36.60	52.51	.
02SEP90:16:15	.	.	.	.	.	.	39.77	37.17	52.20	.
02SEP90:16:30	.	.	.	.	.	.	39.60	36.72	51.25	.
02SEP90:16:45	.	.	.	.	.	.	39.48	36.34	48.89	.
02SEP90:17:00	.	.	.	.	.	.	40.09	37.08	47.75	.
02SEP90:17:15	.	.	.	.	.	.	40.73	37.83	46.02	.
02SEP90:17:30	.	.	.	.	.	.	41.09	38.17	44.80	.
02SEP90:17:45	.	.	.	.	.	.	41.40	38.24	43.97	.
02SEP90:18:00	.	.	.	.	.	.	41.38	38.38	42.26	.
02SEP90:18:15	.	.	.	.	.	.	41.39	38.19	40.74	.
02SEP90:18:30	.	.	.	.	.	.	41.28	37.81	39.23	.
02SEP90:18:45	.	.	.	.	.	.	41.02	37.62	37.42	.
02SEP90:19:00	.	.	.	.	.	.	40.69	37.15	35.84	.
02SEP90:19:15	.	.	.	.	.	.	40.60	37.20	35.02	.
02SEP90:19:30	.	.	.	.	.	.	40.41	37.16	34.18	.
02SEP90:19:45	.	.	.	.	.	.	40.13	37.03	33.70	.
02SEP90:20:00	.	.	.	.	.	.	39.85	36.89	33.07	.
02SEP90:20:15	.	.	.	.	.	.	39.52	36.72	32.65	.
02SEP90:20:30	.	.	.	.	.	.	39.22	36.57	32.30	.
02SEP90:20:45	.	.	.	.	.	.	38.87	36.39	31.85	.
02SEP90:21:00	.	.	.	.	.	.	38.45	36.11	31.32	.
02SEP90:21:15	.	.	.	.	.	.	38.10	35.88	30.83	.
02SEP90:21:30	.	.	.	.	.	.	37.79	35.67	30.45	.
02SEP90:21:45	.	.	.	.	.	.	37.42	35.44	30.08	.
02SEP90:22:00	.	.	.	.	.	.	37.10	35.23	29.69	.
02SEP90:22:15	.	.	.	.	.	.	36.82	35.09	29.37	.
02SEP90:22:30	.	.	.	.	.	.	36.62	34.98	29.34	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
02SEP90:22:45	.	.	.	.	.	.	36.18	34.69	29.13	.
02SEP90:23:00	.	.	.	.	.	.	35.82	34.42	28.92	.
02SEP90:23:15	.	.	.	.	.	.	35.42	34.15	28.72	.
02SEP90:23:30	.	.	.	.	.	.	35.04	33.84	28.48	.
02SEP90:23:45	.	.	.	.	.	.	34.69	33.56	28.17	.
03SEP90:00:00	.	.	.	.	.	.	34.42	33.32	27.87	.
03SEP90:00:15	.	.	.	.	.	.	34.10	33.08	27.49	.
03SEP90:00:30	.	.	.	.	.	.	33.84	32.86	27.11	.
03SEP90:00:45	.	.	.	.	.	.	33.59	32.66	26.91	.
03SEP90:01:00	.	.	.	.	.	.	33.28	32.42	26.76	.
03SEP90:01:15	.	.	.	.	.	.	33.09	32.19	26.59	.
03SEP90:01:30	.	.	.	.	.	.	32.86	31.98	26.41	.
03SEP90:01:45	.	.	.	.	.	.	32.64	31.81	26.33	.
03SEP90:02:00	.	.	.	.	.	.	32.42	31.60	26.17	.
03SEP90:02:15	.	.	.	.	.	.	32.18	31.40	26.07	.
03SEP90:02:30	.	.	.	.	.	.	31.94	31.19	25.84	.
03SEP90:02:45	.	.	.	.	.	.	31.66	30.96	25.70	.
03SEP90:03:00	.	.	.	.	.	.	31.43	30.75	25.56	.
03SEP90:03:15	.	.	.	.	.	.	31.35	30.65	25.69	.
03SEP90:03:30	.	.	.	.	.	.	31.12	30.52	25.69	.
03SEP90:03:45	.	.	.	.	.	.	30.88	30.31	25.32	.
03SEP90:04:00	.	.	.	.	.	.	30.63	30.10	25.07	.
03SEP90:04:15	.	.	.	.	.	.	30.42	29.90	25.01	.
03SEP90:04:30	.	.	.	.	.	.	30.26	29.80	24.83	.
03SEP90:04:45	.	.	.	.	.	.	30.10	29.64	24.88	.
03SEP90:05:00	.	.	.	.	.	.	29.99	29.61	25.00	.
03SEP90:05:15	.	.	.	.	.	.	29.74	29.40	24.66	.
03SEP90:05:30	.	.	.	.	.	.	29.53	29.21	24.49	.
03SEP90:05:45	.	.	.	.	.	.	29.27	28.98	24.30	.
03SEP90:06:00	.	.	.	.	.	.	29.37	29.03	24.90	.
03SEP90:06:15	.	.	.	.	.	.	29.30	29.03	25.31	.
03SEP90:06:30	.	.	.	.	.	.	29.17	28.91	25.60	.
03SEP90:06:45	.	.	.	.	.	.	29.23	29.00	26.35	.
03SEP90:07:00	.	.	.	.	.	.	29.41	29.24	27.34	.
03SEP90:07:15	.	.	.	.	.	.	29.51	29.38	28.27	.
03SEP90:07:30	.	.	.	.	.	.	29.52	29.47	28.89	.
03SEP90:07:45	.	.	.	.	.	.	29.57	29.50	29.11	.
03SEP90:08:00	.	.	.	.	.	.	29.80	29.73	30.09	.
03SEP90:08:15	.	.	.	.	.	.	30.38	30.37	32.07	.
03SEP90:08:30	.	.	.	.	.	.	31.28	31.39	35.83	.
03SEP90:08:45	.	.	.	.	.	.	31.10	31.39	36.94	.
03SEP90:09:00	.	.	.	.	.	.	31.25	31.27	37.45	.
03SEP90:09:15	.	.	.	.	.	.	32.12	32.12	40.96	.
03SEP90:09:30	.	.	.	.	.	.	32.55	32.91	44.77	.
03SEP90:09:45	.	.	.	.	.	.	32.41	32.12	45.96	.
03SEP90:10:00	.	.	.	.	.	.	32.28	32.40	45.53	.
03SEP90:10:15	.	.	.	.	.	.	32.10	31.61	42.69	.
03SEP90:10:30	.	.	.	.	.	.	33.71	33.65	48.67	.
03SEP90:10:45	.	.	.	.	.	.	34.14	33.49	48.89	.
03SEP90:11:00	.	.	.	.	.	.	34.11	33.73	50.54	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
03SEP90:11:15	.	.	.	.	.	.	34.00	32.91	51.53	.
03SEP90:11:30	.	.	.	.	.	.	35.08	34.12	53.91	.
03SEP90:11:45	.	.	.	.	.	.	35.20	34.60	54.75	.
03SEP90:12:00	.	.	.	.	.	.	35.88	35.55	56.11	.
03SEP90:12:15	.	.	.	.	.	.	35.70	35.30	56.20	.
03SEP90:12:30	.	.	.	.	.	.	35.91	35.17	56.02	.
03SEP90:12:45	.	.	.	.	.	.	36.55	35.91	56.45	.
03SEP90:13:00	.	.	.	.	.	.	37.43	36.38	57.37	.
03SEP90:13:15	.	.	.	.	.	.	37.53	36.37	57.11	.
03SEP90:13:30	.	.	.	.	.	.	38.25	37.13	57.44	.
03SEP90:13:45	.	.	.	.	.	.	38.76	38.08	58.08	.
03SEP90:14:00	.	.	.	.	.	.	38.66	37.07	56.66	.
03SEP90:14:15	.	.	.	.	.	.	38.92	38.14	56.79	.
03SEP90:14:30	.	.	.	.	.	.	39.64	38.42	56.99	.
03SEP90:14:45	.	.	.	.	.	.	40.47	39.17	58.30	.
03SEP90:15:00	.	.	.	.	.	.	39.78	38.60	57.08	.
03SEP90:15:15	.	.	.	.	.	.	39.87	37.90	52.14	.
03SEP90:15:30	.	.	.	.	.	.	39.86	37.75	47.16	.
03SEP90:15:45	38.15	901.00	3.50	197.10	32.49	0.00	40.50	38.36	45.83	.
03SEP90:16:00	38.18	896.00	4.57	209.20	32.29	0.00	41.49	39.46	47.98	.
03SEP90:16:15	38.05	874.00	4.29	193.60	32.50	0.00	42.13	40.07	52.06	.
03SEP90:16:30	37.30	858.00	3.62	185.90	32.51	0.00	39.74	37.29	45.83	.
03SEP90:16:45	38.70	845.00	4.84	178.20	32.10	0.00	39.41	36.78	40.84	.
03SEP90:17:00	38.37	853.00	4.23	203.00	32.19	0.00	34.47	32.27	30.91	.
03SEP90:17:15	38.46	517.50	4.49	193.10	31.55	0.00	18.55	19.32	17.75	.
03SEP90:17:30	37.71	241.70	5.45	173.50	32.47	0.00	21.45	21.34	22.95	.
03SEP90:17:45	37.41	217.10	2.70	205.10	32.67	0.00	22.64	22.74	25.69	.
03SEP90:18:00	37.85	335.60	2.66	200.20	32.14	0.00	22.52	22.72	27.82	.
03SEP90:18:15	38.33	559.00	3.09	279.70	30.74	0.00	22.53	22.60	29.41	.
03SEP90:18:30	37.34	216.60	8.00	351.70	33.20	0.00	21.74	22.16	29.80	.
03SEP90:18:45	35.63	88.70	9.75	349.00	35.33	0.00	20.94	21.59	29.89	.
03SEP90:19:00	33.71	14.64	7.73	22.80	42.98	0.00	20.73	21.19	29.90	.
03SEP90:19:15	.	.	3.93	55.58	.	0.08	21.18	21.83	31.84	.
03SEP90:19:30	.	.	0.85	4.85	.	0.02	21.37	21.91	32.52	.
03SEP90:19:45	.	.	0.48	0.31	.	0.00	21.57	21.92	33.39	.
03SEP90:20:00	.	1.37	0.45	1.12	.	0.02	21.19	21.82	32.36	.
03SEP90:20:15	.	4.45	0.47	2.17	.	0.01	20.76	21.92	32.24	.
03SEP90:20:30	.	4.72	1.08	2.51	.	0.02	20.38	22.01	32.39	.
03SEP90:20:45	.	3.92	1.50	2.15	.	0.00	20.06	21.88	32.08	.
03SEP90:21:00	.	2.57	0.73	0.79	.	0.00	20.06	22.03	32.35	.
03SEP90:21:15	.	0.93	0.88	359.00	.	0.00	19.87	22.85	34.34	.
03SEP90:21:30	.	0.37	0.45	358.90	.	0.00	19.73	22.51	34.86	.
03SEP90:21:45	.	1.66	0.46	0.75	.	0.00	19.80	22.53	35.73	.
03SEP90:22:00	.	1.05	0.48	0.21	.	0.00	19.62	22.66	37.16	.
03SEP90:22:15	.	0.98	0.48	0.28	.	0.00	20.62	22.74	37.31	.
03SEP90:22:30	.	0.78	0.51	359.60	.	0.00	20.66	22.81	37.12	.
03SEP90:22:45	.	0.91	0.54	359.00	.	0.00	21.08	23.09	37.89	.
03SEP90:23:00	.	1.64	0.51	359.90	.	0.00	21.92	23.11	38.64	.
03SEP90:23:15	.	1.67	0.51	1.40	.	0.00	22.05	23.06	38.55	.
03SEP90:23:30	27.59	1.22	0.49	2.99	67.08	0.00	21.02	23.05	38.81	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
03SEP90:23:45	26.11	0.78	0.52	2.99	65.81	0.00	21.23	23.28	39.27	.
04SEP90:00:00	26.09	.	0.49	3.35	64.34	0.00	21.46	23.23	38.95	.
04SEP90:00:15	26.19	.	0.49	4.71	64.28	0.00	21.49	23.23	38.25	.
04SEP90:00:30	26.30	.	0.50	4.35	64.40	0.00	21.21	23.02	38.19	.
04SEP90:00:45	26.29	.	0.53	3.95	63.99	0.00	21.01	23.00	38.32	.
04SEP90:01:00	26.12	.	0.55	3.36	64.88	0.00	21.23	23.08	37.75	.
04SEP90:01:15	25.86	.	0.56	3.38	68.30	0.00	21.39	23.09	37.56	.
04SEP90:01:30	25.92	.	1.62	1.41	69.26	0.00	21.38	23.02	37.09	.
04SEP90:01:45	26.16	.	3.15	359.90	67.92	0.00	21.19	23.09	37.04	.
04SEP90:02:00	25.95	2.11	4.35	359.70	68.16	0.00	21.04	23.14	36.61	.
04SEP90:02:15	25.25	2.92	4.00	359.70	70.90	0.00	21.29	23.12	36.44	.
04SEP90:02:30	24.89	2.92	4.15	359.60	74.10	0.00	21.56	23.26	36.63	.
04SEP90:02:45	24.88	3.75	4.96	359.00	74.40	0.00	21.92	23.21	36.70	.
04SEP90:03:00	24.77	2.50	3.18	359.20	74.50	0.00	21.83	23.30	36.44	.
04SEP90:03:15	24.90	1.89	2.29	359.10	74.50	0.00	21.68	23.42	36.50	.
04SEP90:03:30	25.06	1.27	0.75	359.20	74.10	0.00	21.39	23.40	36.21	.
04SEP90:03:45	24.94	1.08	0.93	359.20	74.70	0.00	21.41	23.26	35.92	.
04SEP90:04:00	24.68	0.96	1.52	359.30	74.40	0.00	21.39	23.23	35.66	.
04SEP90:04:15	24.38	0.98	1.82	359.40	75.80	0.00	21.41	23.20	35.48	.
04SEP90:04:30	24.81	0.96	1.83	359.30	76.90	0.00	21.64	23.26	35.77	.
04SEP90:04:45	24.86	0.83	2.60	359.30	77.60	0.00	21.55	23.37	35.78	.
04SEP90:05:00	25.18	0.64	1.65	359.30	76.20	0.00	21.51	23.23	35.17	.
04SEP90:05:15	25.23	0.64	1.65	359.30	74.60	0.00	21.52	23.03	34.82	.
04SEP90:05:30	25.18	0.39	1.79	359.40	72.90	0.00	21.58	23.03	34.84	.
04SEP90:05:45	25.17	0.32	1.61	359.40	71.90	0.00	21.82	23.00	34.30	.
04SEP90:06:00	24.90	0.44	2.19	359.40	72.80	0.00	21.67	22.88	34.00	.
04SEP90:06:15	24.66	0.29	2.37	359.50	73.30	0.00	21.80	22.74	33.87	.
04SEP90:06:30	24.59	0.39	0.95	359.50	73.20	0.00	21.90	22.70	33.50	.
04SEP90:06:45	24.74	0.27	0.46	359.40	71.70	0.00	22.12	22.87	33.74	.
04SEP90:07:00	24.60	0.29	1.19	359.50	71.80	0.00	22.23	23.08	34.42	.
04SEP90:07:15	24.48	0.29	0.81	359.40	72.20	0.00	22.12	22.93	34.98	.
04SEP90:07:30	24.39	0.27	0.46	359.40	72.60	0.00	22.27	23.03	36.02	.
04SEP90:07:45	24.21	0.27	0.47	359.40	73.50	0.00	23.56	23.93	38.11	.
04SEP90:08:00	24.04	0.34	0.45	359.40	74.70	0.00	22.77	23.89	39.87	.
04SEP90:08:15	23.64	1.10	0.45	359.40	77.20	0.00	23.51	24.17	41.89	.
04SEP90:08:30	23.79	4.29	0.45	359.40	77.80	0.00	24.66	24.73	44.09	.
04SEP90:08:45	23.78	16.44	0.45	359.40	79.30	0.00	25.60	25.21	46.25	.
04SEP90:09:00	24.07	28.12	0.45	359.40	79.60	0.00	26.63	25.44	48.49	.
04SEP90:09:15	24.52	28.56	0.45	359.40	78.90	0.00	25.50	24.85	49.49	.
04SEP90:09:30	24.62	34.05	0.45	359.40	79.40	0.00	26.15	25.44	50.64	.
04SEP90:09:45	25.54	72.90	0.45	359.40	78.30	0.00	26.85	25.61	50.96	.
04SEP90:10:00	26.76	79.30	0.45	359.40	75.50	0.00	25.51	26.02	50.97	.
04SEP90:10:15	27.34	79.30	0.45	359.30	72.10	0.00	25.30	25.15	50.44	.
04SEP90:10:30	28.85	104.60	0.45	359.30	68.41	0.00	26.35	25.80	51.17	.
04SEP90:10:45	30.48	105.20	0.45	359.30	63.33	0.00	26.06	26.10	50.49	.
04SEP90:11:00	30.80	104.90	0.45	359.30	60.37	0.00	26.91	26.82	50.42	.
04SEP90:11:15	30.81	108.00	0.45	359.30	59.27	0.00	27.30	27.09	50.96	.
04SEP90:11:30	30.02	109.60	0.48	359.30	58.26	0.00	27.71	26.88	49.48	.
04SEP90:11:45	31.03	111.60	0.52	359.40	56.50	0.00	28.52	27.71	47.47	.
04SEP90:12:00	31.59	113.00	0.59	359.40	56.28	0.00	29.05	28.47	47.47	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
04SEP90:12:15	32.09	114.60	0.47	359.30	54.51	0.00	29.44	28.41	45.63	.
04SEP90:12:30	31.88	113.00	0.60	359.40	54.57	0.00	30.63	28.57	44.46	.
04SEP90:12:45	31.75	155.80	1.20	359.30	54.43	0.00	30.80	28.55	42.86	.
04SEP90:13:00	32.42	164.00	1.62	359.40	53.86	0.00	31.01	28.83	41.75	.
04SEP90:13:15	30.90	961.00	0.86	169.30	51.02	0.03	31.07	28.69	40.17	.
04SEP90:13:30	31.02	495.00	0.79	147.00	50.87	0.00	31.36	28.78	39.35	.
04SEP90:13:45	30.75	326.90	1.54	118.60	50.70	0.00	31.69	29.05	39.13	.
04SEP90:14:00	30.42	452.20	2.04	164.90	50.51	0.00	32.25	29.83	40.51	.
04SEP90:14:15	30.62	357.90	2.33	150.30	49.54	0.00	32.36	30.26	41.85	.
04SEP90:14:30	30.56	326.80	2.13	160.60	48.97	0.04	32.40	30.41	42.97	.
04SEP90:14:45	30.44	277.10	1.68	198.40	49.67	0.00	32.50	30.31	43.37	.
04SEP90:15:00	30.23	242.70	1.12	202.60	49.80	0.00	32.61	30.32	43.00	.
04SEP90:15:15	30.16	229.90	3.56	185.30	49.74	0.00	32.61	30.30	42.70	.
04SEP90:15:30	29.70	246.90	4.37	164.40	51.02	0.00	32.58	29.60	42.38	.
04SEP90:15:45	29.29	291.00	4.67	161.30	51.50	0.00	32.95	30.28	42.78	.
04SEP90:16:00	28.94	346.50	4.04	164.90	51.91	0.00	33.01	30.47	42.41	.
04SEP90:16:15	29.21	446.20	3.59	168.40	52.52	0.00	33.15	30.56	41.93	.
04SEP90:16:30	29.79	514.50	3.11	177.50	50.39	0.00	33.56	31.07	42.13	.
04SEP90:16:45	29.98	518.80	2.77	177.70	50.19	0.00	33.50	31.13	41.25	.
04SEP90:17:00	30.03	408.80	2.44	183.80	51.03	0.00	33.16	31.07	39.75	.
04SEP90:17:15	30.13	408.80	2.51	185.10	50.75	0.00	33.32	30.71	38.80	.
04SEP90:17:30	30.50	378.00	1.91	233.50	51.05	0.00	33.54	30.82	37.97	.
04SEP90:17:45	30.55	456.80	1.65	226.50	49.64	0.00	33.46	31.03	37.39	.
04SEP90:18:00	30.63	394.50	1.43	251.10	49.54	0.00	33.28	30.79	36.22	.
04SEP90:18:15	30.72	375.50	1.37	262.80	48.67	0.00	33.19	30.62	35.06	.
04SEP90:18:30	30.78	390.20	1.32	248.20	47.26	0.00	33.05	30.57	34.01	.
04SEP90:18:45	31.20	329.40	1.19	227.60	44.86	0.00	32.80	30.38	32.88	.
04SEP90:19:00	31.20	211.00	0.96	260.30	43.98	0.00	32.57	30.24	31.83	.
04SEP90:19:15	30.92	191.90	0.80	222.40	42.84	0.00	32.40	30.10	31.30	.
04SEP90:19:30	31.10	172.50	0.43	230.30	41.79	0.00	32.23	29.95	30.81	.
04SEP90:19:45	31.01	146.90	0.61	220.50	41.61	0.00	32.10	29.88	30.51	.
04SEP90:20:00	30.91	103.10	0.54	228.10	41.47	0.00	31.88	29.74	30.25	.
04SEP90:20:15	30.72	65.80	0.36	138.90	41.92	0.00	31.69	29.60	29.92	.
04SEP90:20:30	30.52	34.40	0.41	97.90	42.98	0.00	31.46	29.46	29.55	.
04SEP90:20:45	30.35	13.77	0.46	134.30	43.21	0.00	31.28	29.33	29.43	.
04SEP90:21:00	30.08	6.10	1.32	107.80	45.52	0.00	31.06	29.20	29.09	.
04SEP90:21:15	29.95	1.45	0.60	98.60	46.03	0.00	30.79	29.01	28.85	.
04SEP90:21:30	29.90	0.39	0.44	110.00	46.23	0.00	30.58	28.86	28.67	.
04SEP90:21:45	29.76	0.12	0.44	111.90	47.08	0.00	30.37	28.69	28.30	.
04SEP90:22:00	29.63	0.42	0.45	95.90	48.04	0.00	30.16	28.55	28.01	.
04SEP90:22:15	29.47	0.52	0.45	97.50	49.02	0.00	29.91	28.35	27.70	.
04SEP90:22:30	29.38	0.56	0.45	86.90	48.92	0.00	29.70	28.24	27.45	.
04SEP90:22:45	29.32	0.49	0.45	91.70	49.01	0.00	29.43	28.10	27.35	.
04SEP90:23:00	29.25	0.39	0.45	84.30	49.38	0.00	29.40	28.01	27.37	.
04SEP90:23:15	.	.	.	27.62	.	1.79	29.27	27.88	27.49	.
04SEP90:23:30	.	.	.	.	.	.	29.11	27.82	27.42	.
04SEP90:23:45	28.95	0.54	1.47	94.50	53.83	0.00	28.90	27.66	27.40	.
05SEP90:00:00	28.88	0.39	1.29	112.20	52.78	0.00	28.73	27.55	27.56	.
05SEP90:00:15	28.68	0.49	1.65	122.20	53.05	0.00	28.63	27.45	27.66	.
05SEP90:00:30	28.41	0.32	1.48	123.30	54.42	0.00	28.50	27.37	27.53	.



DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
05SEP90:00:45	28.62	0.47	1.45	119.90	52.80	0.00	28.37	27.34	27.48	.
05SEP90:01:00	28.21	0.34	1.96	99.50	55.19	0.00	28.23	27.25	27.50	.
05SEP90:01:15	28.41	0.42	1.50	103.40	56.45	0.00	28.08	27.15	27.33	.
05SEP90:01:30	28.40	0.39	1.74	94.20	54.97	0.00	27.91	27.05	27.13	.
05SEP90:01:45	28.45	0.39	1.71	86.00	54.74	0.00	27.71	26.94	26.92	.
05SEP90:02:00	28.12	0.47	2.20	78.50	59.63	0.00	27.49	26.77	26.59	.
05SEP90:02:15	27.86	0.44	2.12	77.70	63.58	0.00	27.31	26.66	26.44	.
05SEP90:02:30	27.78	0.44	2.18	97.20	66.46	0.00	27.21	26.58	26.40	.
05SEP90:02:45	28.00	0.39	2.06	103.60	63.16	0.00	27.12	26.48	26.42	.
05SEP90:03:00	27.87	0.34	2.18	104.40	62.44	0.00	27.05	26.39	26.54	.
05SEP90:03:15	27.80	0.44	1.90	117.80	61.70	0.00	26.92	26.29	26.55	.
05SEP90:03:30	27.60	0.29	2.24	119.70	61.78	0.00	26.76	26.17	26.42	.
05SEP90:03:45	27.36	2.06	2.74	126.60	62.13	0.00	26.61	26.04	26.23	.
05SEP90:04:00	27.13	0.88	2.59	135.70	62.54	0.00	26.51	25.94	26.20	.
05SEP90:04:15	26.87	1.05	2.76	124.10	63.39	0.00	26.38	25.86	26.07	.
05SEP90:04:30	26.73	0.98	2.64	125.70	64.02	0.00	26.21	25.74	25.72	.
05SEP90:04:45	26.55	0.98	2.65	111.10	64.72	0.00	26.05	25.63	25.52	.
05SEP90:05:00	26.47	0.86	2.43	95.30	65.41	0.00	25.87	25.48	25.43	.
05SEP90:05:15	26.16	0.96	2.78	92.30	68.29	0.00	25.76	25.37	25.46	.
05SEP90:05:30	26.03	0.74	2.56	90.60	70.30	0.00	25.69	25.30	25.58	.
05SEP90:05:45	26.07	0.69	2.48	92.60	70.60	0.00	25.56	25.20	25.76	.
05SEP90:06:00	26.16	0.52	2.34	93.90	69.89	0.00	25.45	25.09	25.66	.
05SEP90:06:15	26.22	0.71	2.71	86.00	69.81	0.00	25.37	25.06	25.40	.
05SEP90:06:30	26.05	0.61	2.70	89.90	69.92	0.00	25.08	24.90	25.09	.
05SEP90:06:45	25.98	0.12	2.93	82.30	70.00	0.00	25.11	24.86	25.26	.
05SEP90:07:00	25.81	.	2.26	83.10	70.30	0.00	25.17	25.01	25.49	.
05SEP90:07:15	25.86	0.42	2.50	79.80	70.20	0.00	25.25	25.14	26.20	.
05SEP90:07:30	26.00	0.56	2.68	72.10	69.43	0.00	25.29	25.17	27.12	.
05SEP90:07:45	25.90	1.01	3.00	74.30	70.10	0.00	25.24	25.20	27.44	.
05SEP90:08:00	26.02	0.74	1.77	91.50	69.38	0.00	25.19	25.18	27.75	.
05SEP90:08:15	25.98	4.59	2.17	90.10	69.41	0.00	25.38	25.34	28.72	.
05SEP90:08:30	26.15	.	2.01	71.50	68.37	0.00	25.70	25.74	29.95	.
05SEP90:08:45	26.06	9.58	2.29	86.40	68.20	0.00	25.76	25.69	31.23	.
05SEP90:09:00	26.06	23.85	2.63	93.50	68.87	0.00	26.34	26.45	33.26	.
05SEP90:09:15	26.24	46.28	2.05	76.90	69.00	0.00	26.34	26.27	34.25	.
05SEP90:09:30	26.20	77.30	2.41	73.50	69.64	0.00	26.25	25.93	34.20	.
05SEP90:09:45	26.30	72.90	3.01	64.93	69.89	0.00	26.71	26.42	34.75	.
05SEP90:10:00	26.44	69.28	2.87	103.30	69.48	0.00	27.12	26.68	35.18	.
05SEP90:10:15	26.54	94.70	1.40	73.90	70.20	0.07	27.53	27.33	35.09	.
05SEP90:10:30	.	.	.	.	.	.	27.38	26.85	34.60	.
05SEP90:10:45	.	.	.	.	.	.	27.50	26.75	34.36	.
05SEP90:11:00	.	.	.	.	.	.	27.97	27.16	34.64	.
05SEP90:11:15	28.13	365.70	1.49	94.10	66.31	0.00	28.51	27.91	35.16	.
05SEP90:11:30	28.22	288.40	1.91	103.20	65.07	0.00	28.72	28.11	35.58	.
05SEP90:11:45	28.94	318.70	0.71	76.80	62.74	0.00	29.05	28.30	36.45	.
05SEP90:12:00	29.18	299.40	0.59	68.33	60.91	0.00	29.45	28.65	37.37	.
05SEP90:12:15	29.01	296.40	1.51	87.30	59.55	0.00	29.88	29.05	39.01	.
05SEP90:12:30	28.67	215.00	2.34	84.60	59.36	0.00	29.91	29.13	39.75	.
05SEP90:12:45	28.59	234.00	2.06	77.10	60.46	0.00	30.31	29.20	40.84	.
05SEP90:13:00	28.74	270.40	2.23	69.77	60.51	0.00	31.26	30.50	45.99	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
05SEP90:13:15	29.17	316.20	1.47	85.10	59.03	0.00	31.70	30.72	49.60	.
05SEP90:13:30	30.01	361.30	0.60	21.75	54.85	0.00	31.69	30.99	49.21	.
05SEP90:13:45	29.52	398.10	2.38	99.10	53.67	0.00	32.78	32.48	52.39	.
05SEP90:14:00	29.72	421.70	2.27	92.90	53.44	0.00	32.12	31.39	51.78	.
05SEP90:14:15	29.39	457.10	3.39	111.90	52.54	0.00	32.86	31.75	52.77	.
05SEP90:14:30	29.90	636.50	3.10	97.80	51.27	0.00	32.65	31.12	52.97	.
05SEP90:14:45	30.28	573.10	2.75	95.70	47.94	0.00	33.48	31.56	53.27	.
05SEP90:15:00	30.98	898.00	3.16	103.90	43.81	0.00	33.57	31.13	52.16	.
05SEP90:15:15	32.19	.	0.93	74.60	39.21	0.00	34.22	32.20	51.77	.
05SEP90:15:30	32.05	876.00	1.48	91.50	38.68	0.00	33.75	31.69	50.14	.
05SEP90:15:45	32.54	.	1.92	145.00	37.29	0.00	34.75	32.30	49.69	.
05SEP90:16:00	32.14	964.00	3.50	138.70	36.88	0.00	35.72	33.36	49.57	.
05SEP90:16:15	32.05	881.00	2.77	148.30	36.69	0.00	35.19	32.28	48.00	.
05SEP90:16:30	32.69	858.00	1.17	129.00	36.24	0.00	35.28	32.20	46.57	.
05SEP90:16:45	32.46	636.90	1.31	154.70	36.05	0.00	35.77	32.74	46.22	.
05SEP90:17:00	32.85	685.80	1.67	29.32	35.87	0.00	35.70	32.33	43.34	.
05SEP90:17:15	33.14	731.00	1.15	10.48	35.43	0.00	36.84	33.59	44.07	.
05SEP90:17:30	32.87	695.50	1.52	131.70	35.06	0.00	36.95	33.75	43.58	.
05SEP90:17:45	33.20	648.40	0.55	124.80	34.56	0.00	36.98	33.59	41.47	.
05SEP90:18:00	33.84	601.10	0.29	183.00	33.86	0.00	36.56	33.05	39.59	.
05SEP90:18:15	32.96	554.60	1.24	220.70	34.23	0.00	36.63	33.12	38.03	.
05SEP90:18:30	33.16	508.90	0.69	226.60	34.40	0.00	36.35	32.98	36.16	.
05SEP90:18:45	33.67	467.20	0.93	205.60	33.98	0.00	36.14	32.63	34.70	.
05SEP90:19:00	33.25	295.20	1.82	287.40	34.46	0.00	36.06	32.81	33.68	.
05SEP90:19:15	33.18	425.70	1.22	261.30	34.23	0.00	35.84	32.69	32.89	.
05SEP90:19:30	33.35	351.50	1.50	296.20	33.97	0.00	35.49	32.54	32.07	.
05SEP90:19:45	32.83	203.30	2.30	171.70	34.53	0.00	35.11	32.33	31.41	.
05SEP90:20:00	33.05	121.80	1.76	272.00	34.10	0.00	34.79	32.16	30.94	.
05SEP90:20:15	32.99	128.10	1.81	269.60	33.95	0.00	34.47	31.94	30.53	.
05SEP90:20:30	32.66	56.01	0.83	282.30	34.10	0.00	34.24	31.74	30.07	.
05SEP90:20:45	32.44	21.07	0.67	239.40	34.47	0.00	34.00	31.58	29.68	.
05SEP90:21:00	32.24	7.10	1.87	301.50	34.65	0.00	33.83	31.53	29.57	.
05SEP90:21:15	32.02	1.57	2.52	307.70	34.69	0.00	33.53	31.35	29.27	.
05SEP90:21:30	31.47	0.39	3.73	336.70	38.13	0.00	33.26	31.19	28.81	.
05SEP90:21:45	31.33	0.44	3.73	328.90	39.18	0.00	32.98	31.02	28.50	.
05SEP90:22:00	31.13	0.34	3.08	338.30	40.09	0.00	32.72	30.82	28.06	.
05SEP90:22:15	30.91	0.42	2.94	340.40	40.80	0.00	32.46	30.65	27.83	.
05SEP90:22:30	30.77	0.51	2.87	342.60	41.14	0.00	32.24	30.47	27.64	.
05SEP90:22:45	30.56	0.25	2.59	341.70	41.76	0.00	32.03	30.32	27.50	.
05SEP90:23:00	30.35	0.44	0.25	357.30	42.77	0.00	31.85	30.23	27.37	.
05SEP90:23:15	30.50	0.37	0.22	192.90	42.47	0.00	31.57	30.05	27.19	.
05SEP90:23:30	30.60	0.47	0.32	216.70	42.04	0.00	31.31	29.87	26.93	.
05SEP90:23:45	30.25	0.54	0.44	182.50	43.11	0.00	31.09	29.73	26.80	.
06SEP90:00:00	30.09	0.39	0.42	123.40	43.35	0.00	30.84	29.54	26.55	.
06SEP90:00:15	29.66	0.49	0.44	128.00	46.84	0.00	30.63	29.39	26.37	.
06SEP90:00:30	29.52	0.49	0.41	117.40	49.03	0.00	30.39	29.23	26.25	.
06SEP90:00:45	29.18	0.54	1.30	134.20	51.10	0.00	30.09	29.03	25.98	.
06SEP90:01:00	29.14	0.32	2.52	152.30	51.62	0.00	29.85	28.85	25.75	.
06SEP90:01:15	29.18	0.34	3.14	165.20	50.90	0.00	29.74	28.72	25.58	.
06SEP90:01:30	29.04	1.42	3.11	167.60	51.14	0.00	29.58	28.62	25.55	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
06SEP90:01:45	28.78	0.42	2.67	152.70	52.01	0.00	29.31	28.42	25.31	.
06SEP90:02:00	28.59	0.49	2.41	146.90	52.99	0.00	29.05	28.20	25.27	.
06SEP90:02:15	28.49	0.34	2.37	146.00	54.38	0.00	28.81	28.00	25.11	.
06SEP90:02:30	28.38	0.39	1.62	138.30	55.65	0.00	28.68	27.87	24.98	.
06SEP90:02:45	28.45	0.42	1.02	144.40	55.88	0.00	28.43	27.71	24.97	.
06SEP90:03:00	28.09	0.54	1.01	82.50	58.47	0.00	28.27	27.57	24.80	.
06SEP90:03:15	28.20	0.44	0.97	98.60	58.32	0.00	28.05	27.41	24.73	.
06SEP90:03:30	27.59	0.47	2.05	95.20	61.28	0.00	27.91	27.30	24.59	.
06SEP90:03:45	27.75	0.52	0.65	71.50	61.60	0.00	27.67	27.09	24.49	.
06SEP90:04:00	27.95	0.71	0.75	119.70	61.00	0.00	27.56	27.00	24.35	.
06SEP90:04:15	27.76	0.91	1.00	112.70	61.56	0.00	27.30	26.80	24.34	.
06SEP90:04:30	27.50	0.69	0.92	62.01	62.68	0.00	27.16	26.69	24.20	.
06SEP90:04:45	27.50	0.66	0.90	95.10	62.63	0.00	27.00	26.56	24.14	.
06SEP90:05:00	27.12	1.13	2.06	89.20	64.07	0.00	26.85	26.48	24.03	.
06SEP90:05:15	27.21	0.52	1.13	71.50	64.27	0.00	26.69	26.33	23.86	.
06SEP90:05:30	27.10	0.52	2.10	78.60	64.80	0.00	26.56	26.19	23.85	.
06SEP90:05:45	27.03	0.49	2.44	91.00	65.14	0.00	26.48	26.16	23.82	.
06SEP90:06:00	26.80	1.69	2.23	93.00	66.07	0.00	26.33	26.05	23.96	.
06SEP90:06:15	26.90	0.79	1.33	91.40	65.87	0.00	26.09	25.82	23.73	.
06SEP90:06:30	26.80	0.86	0.79	85.70	65.94	0.00	26.03	25.76	23.85	.
06SEP90:06:45	26.32	0.96	1.93	90.30	68.80	0.00	26.33	26.03	24.42	.
06SEP90:07:00	26.68	0.83	0.80	52.63	67.33	0.00	26.70	26.30	25.44	.
06SEP90:07:15	26.88	0.74	0.45	98.60	66.33	0.00	27.02	26.80	26.71	.
06SEP90:07:30	26.49	0.86	0.61	103.90	68.09	0.00	26.88	26.72	28.12	.
06SEP90:07:45	25.61	1.89	1.77	88.90	76.20	0.00	27.20	27.05	29.80	.
06SEP90:08:00	25.88	0.93	0.96	72.10	78.40	0.00	27.20	27.32	31.59	.
06SEP90:08:15	26.65	2.94	0.94	19.58	70.80	0.00	27.81	27.14	33.08	.
06SEP90:08:30	26.42	10.84	1.22	356.00	70.70	0.00	28.16	27.09	34.70	.
06SEP90:08:45	26.35	21.44	1.26	1.72	71.00	0.00	28.28	27.64	36.39	.
06SEP90:09:00	26.86	70.40	1.26	5.26	68.23	0.00	28.21	27.94	38.13	.
06SEP90:09:15	27.42	119.40	0.66	55.62	66.58	0.00	28.33	27.68	39.52	.
06SEP90:09:30	28.51	164.00	0.51	20.31	63.84	0.00	28.84	27.64	40.99	.
06SEP90:09:45	29.68	214.70	0.42	97.90	60.30	0.00	29.57	28.26	42.53	.
06SEP90:10:00	30.22	264.70	0.23	330.10	58.79	0.00	29.85	28.85	44.14	.
06SEP90:10:15	29.71	317.80	0.59	156.90	58.66	0.00	30.05	28.99	45.60	.
06SEP90:10:30	29.76	369.70	0.40	218.00	58.05	0.00	30.48	29.42	47.03	.
06SEP90:10:45	30.86	422.60	0.05	168.40	56.33	0.00	30.71	29.70	48.23	.
06SEP90:11:00	30.84	471.70	0.39	72.10	54.39	0.00	30.66	29.53	48.64	.
06SEP90:11:15	30.48	521.00	0.61	277.80	53.24	0.00	31.32	30.42	50.03	.
06SEP90:11:30	31.21	568.40	0.66	308.70	50.05	0.00	32.33	31.07	52.47	.
06SEP90:11:45	31.53	613.00	0.84	329.50	48.15	0.00	32.14	31.07	51.71	.
06SEP90:12:00	31.77	654.20	0.56	320.70	45.82	0.00	33.22	31.88	54.02	.
06SEP90:12:15	32.02	694.60	1.30	340.50	44.06	0.00	33.00	31.55	53.56	.
06SEP90:12:30	32.04	732.00	2.25	327.00	42.57	0.00	34.04	32.80	54.94	.
06SEP90:12:45	32.40	772.00	1.00	266.90	41.01	0.00	34.35	32.91	56.04	.
06SEP90:13:00	32.91	814.00	2.36	292.10	39.62	0.00	34.45	32.69	55.82	.
06SEP90:13:15	32.62	895.00	1.09	236.50	39.17	0.00	35.49	33.59	55.52	.
06SEP90:13:30	32.93	766.00	2.55	302.10	38.18	0.00	35.52	33.66	56.25	.
06SEP90:13:45	32.82	373.30	0.77	246.90	37.82	0.00	36.23	34.30	57.07	.
06SEP90:14:00	33.34	932.00	1.07	234.70	36.78	0.00	36.75	34.67	57.03	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M <sup>2</sup> )	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
06SEP90:14:15	33.99	956.00	0.77	282.70	35.76	0.00	36.35	34.19	54.77	.
06SEP90:14:30	34.36	995.00	1.40	318.80	34.85	0.00	36.68	33.86	55.21	.
06SEP90:14:45	33.66	232.50	3.09	335.20	35.21	0.00	37.89	35.07	55.86	.
06SEP90:15:00	34.42	946.00	0.15	28.65	34.12	0.00	38.28	35.35	55.98	.
06SEP90:15:15	35.26	959.00	0.48	41.33	32.82	0.00	37.81	35.08	54.07	.
06SEP90:15:30	34.74	947.00	1.50	318.10	32.38	0.00	37.37	34.42	48.68	.
06SEP90:15:45	35.08	851.00	1.24	103.00	31.94	0.00	38.74	35.50	48.52	.
06SEP90:16:00	35.23	685.50	1.30	303.50	31.40	0.00	39.57	36.67	51.18	.
06SEP90:16:15	35.48	882.00	2.81	312.00	30.89	0.00	39.77	36.60	51.18	.
06SEP90:16:30	36.09	872.00	1.09	313.20	29.87	0.00	38.65	35.49	48.64	.
06SEP90:16:45	36.02	834.00	1.85	6.47	29.08	0.00	39.10	35.68	47.27	.
06SEP90:17:00	36.22	798.00	1.64	288.00	28.12	0.00	39.91	36.42	46.74	.
06SEP90:17:15	36.01	763.00	3.26	355.10	27.58	0.00	39.60	36.19	45.45	.
06SEP90:17:30	35.86	459.30	2.53	348.50	27.16	0.00	39.74	36.12	43.67	.
06SEP90:17:45	36.92	667.90	0.51	83.10	26.05	0.00	40.11	36.46	42.78	.
06SEP90:18:00	36.73	629.60	1.08	357.10	25.04	0.00	39.89	36.03	40.72	.
06SEP90:18:15	36.28	567.00	2.66	332.30	25.02	0.00	39.78	35.96	38.98	.
06SEP90:18:30	36.24	515.90	2.94	282.80	24.52	0.00	39.58	35.92	37.31	.
06SEP90:18:45	36.88	462.30	1.65	248.10	24.02	0.00	39.32	35.83	35.74	.
06SEP90:19:00	36.76	396.50	1.19	255.80	23.22	0.00	38.87	35.59	34.45	.
06SEP90:19:15	36.26	351.50	2.84	321.00	23.96	0.00	38.48	35.54	33.60	.
06SEP90:19:30	36.49	280.90	0.57	331.10	23.58	0.00	38.09	35.39	32.96	.
06SEP90:19:45	36.35	212.60	2.89	333.60	23.84	0.00	37.71	35.18	32.28	.
06SEP90:20:00	36.12	159.60	3.36	316.90	23.72	0.00	37.35	34.97	31.82	.
06SEP90:20:15	35.94	138.50	3.54	296.40	23.73	0.00	37.03	34.75	31.38	.
06SEP90:20:30	35.63	87.80	2.68	320.80	23.67	0.00	36.73	34.59	30.96	.
06SEP90:20:45	35.61	35.67	3.96	306.60	22.34	0.00	36.44	34.39	30.44	.
06SEP90:21:00	35.06	8.43	4.53	310.20	22.27	0.00	36.21	34.17	29.93	.
06SEP90:21:15	34.73	1.22	4.46	316.70	22.38	0.00	35.91	34.00	29.59	.
06SEP90:21:30	34.29	0.49	3.63	313.70	23.08	0.00	35.63	33.83	29.31	.
06SEP90:21:45	34.12	0.47	2.61	306.60	23.88	0.00	35.19	33.57	29.05	.
06SEP90:22:00	33.99	0.39	2.78	312.90	23.97	0.00	34.91	33.30	28.67	.
06SEP90:22:15	33.83	0.29	2.86	310.10	24.35	0.00	34.69	33.10	28.26	.
06SEP90:22:30	33.53	0.32	2.38	319.30	25.06	0.00	34.38	32.90	28.03	.
06SEP90:22:45	33.21	0.39	1.53	330.20	26.15	0.00	34.16	32.73	27.80	.
06SEP90:23:00	33.18	0.34	1.77	347.60	25.74	0.00	33.88	32.52	27.64	.
06SEP90:23:15	33.03	0.49	2.01	347.80	25.79	0.00	33.61	32.29	27.21	.
06SEP90:23:30	32.83	0.54	2.07	344.30	26.30	0.00	33.36	32.06	27.05	.
06SEP90:23:45	32.61	0.47	1.42	5.39	26.80	0.00	33.14	31.91	26.79	.
07SEP90:00:00	32.78	0.39	1.28	18.37	27.05	0.00	32.92	31.75	26.63	.
07SEP90:00:15	32.83	0.44	0.59	35.79	27.20	0.00	32.63	31.55	26.33	.
07SEP90:00:30	32.72	0.37	0.45	41.55	27.77	0.00	32.34	31.31	26.10	.
07SEP90:00:45	32.51	0.51	0.38	41.41	28.62	0.00	32.11	31.09	25.91	.
07SEP90:01:00	32.47	0.42	1.31	27.50	28.87	0.00	31.90	30.94	25.76	.
07SEP90:01:15	31.88	0.42	1.61	27.83	30.46	0.00	31.37	30.54	25.44	.
07SEP90:01:30	31.17	0.51	0.74	105.10	33.21	0.00	31.40	30.47	25.38	.
07SEP90:01:45	29.95	0.66	1.95	129.60	39.76	0.00	31.26	30.41	25.31	.
07SEP90:02:00	30.58	0.29	1.72	161.00	37.88	0.00	30.94	30.21	25.25	.
07SEP90:02:15	31.26	0.49	0.78	166.50	35.75	0.00	30.58	29.86	24.92	.
07SEP90:02:30	31.40	0.49	0.21	310.20	34.81	0.00	30.33	29.62	24.78	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
07SEP90:02:45	31.31	0.64	0.44	339.70	34.79	0.00	30.13	29.44	24.63	.
07SEP90:03:00	31.26	0.54	0.43	340.70	34.43	0.00	29.92	29.29	24.46	.
07SEP90:03:15	31.25	0.49	0.44	339.10	34.66	0.00	29.76	29.18	24.41	.
07SEP90:03:30	30.93	0.39	0.78	351.90	35.23	0.00	29.59	29.08	24.41	.
07SEP90:03:45	30.88	0.56	1.72	2.14	35.48	0.00	29.32	28.89	24.23	.
07SEP90:04:00	30.77	1.20	0.54	73.40	36.73	0.00	29.15	28.73	24.12	.
07SEP90:04:15	30.84	0.98	1.42	27.06	37.11	0.00	28.97	28.58	23.94	.
07SEP90:04:30	30.42	0.93	1.75	22.11	37.86	0.00	28.85	28.54	23.94	.
07SEP90:04:45	.	.	.	.	.	.	28.65	28.38	23.88	.
07SEP90:05:00	.	.	.	.	.	.	28.57	28.36	24.01	.
07SEP90:05:15	29.97	1.10	0.73	74.20	37.95	0.00	28.32	28.11	23.79	.
07SEP90:05:30	29.36	1.03	0.69	91.70	40.20	0.00	28.12	27.96	23.66	.
07SEP90:05:45	29.70	0.91	1.46	28.61	39.20	0.00	27.98	27.83	23.60	.
07SEP90:06:00	29.57	0.93	1.14	34.41	39.24	0.00	27.93	27.85	23.53	.
07SEP90:06:15	29.82	0.61	1.05	47.78	38.31	0.00	27.83	27.80	23.52	.
07SEP90:06:30	30.03	0.54	1.25	45.86	37.65	0.00	27.71	27.73	23.66	.
07SEP90:06:45	30.03	0.61	0.76	55.92	37.62	0.00	28.05	27.96	24.21	.
07SEP90:07:00	30.15	0.66	0.66	47.98	37.33	0.00	28.16	28.05	24.91	25.55
07SEP90:07:15	29.54	0.88	0.36	92.90	38.83	0.00	28.31	28.34	25.97	26.59
07SEP90:07:30	28.21	0.71	0.83	99.80	41.24	0.00	28.50	28.55	27.30	27.37
07SEP90:07:45	29.50	0.69	0.69	76.10	39.17	0.00	28.76	28.94	28.97	28.53
07SEP90:08:00	29.98	0.86	1.05	69.66	38.34	0.00	28.53	28.89	30.42	29.51
07SEP90:08:15	29.78	2.58	1.04	59.32	38.88	0.00	29.80	29.33	32.32	30.62
07SEP90:08:30	29.60	9.45	1.06	52.55	39.16	0.00	30.23	29.55	34.19	31.55
07SEP90:08:45	29.31	20.16	1.17	27.93	39.74	0.00	30.43	30.18	36.19	31.94
07SEP90:09:00	29.53	75.30	0.42	81.40	39.71	0.00	29.69	29.63	37.25	31.87
07SEP90:09:15	30.02	126.30	1.19	21.32	39.35	0.00	30.21	30.18	38.81	32.47
07SEP90:09:30	30.20	174.30	1.78	14.37	39.93	0.00	31.15	30.33	40.32	33.24
07SEP90:09:45	30.62	225.40	1.91	9.50	39.75	0.00	31.70	30.85	42.39	34.35
07SEP90:10:00	31.11	277.50	1.64	6.33	39.58	0.00	31.91	31.25	43.87	35.03
07SEP90:10:15	31.77	330.60	0.99	358.60	39.06	0.00	32.51	31.77	45.96	35.74
07SEP90:10:30	31.91	383.00	0.98	309.70	38.69	0.00	32.47	32.41	47.40	36.29
07SEP90:10:45	32.34	435.00	1.10	282.20	37.70	0.00	32.38	32.16	47.98	36.10
07SEP90:11:00	32.99	486.10	1.23	266.10	36.48	0.00	32.78	32.02	49.29	37.19
07SEP90:11:15	33.30	534.80	1.39	273.40	36.05	0.00	32.86	32.02	49.88	37.47
07SEP90:11:30	33.70	583.10	1.48	270.40	35.20	0.00	34.61	33.81	52.43	38.41
07SEP90:11:45	34.36	630.00	0.86	235.50	33.87	0.00	34.13	33.57	53.18	38.47
07SEP90:12:00	34.82	673.70	0.77	293.50	32.48	0.00	34.36	33.89	52.61	38.92
07SEP90:12:15	35.20	713.00	0.53	254.30	30.73	0.00	35.19	34.85	53.72	38.49
07SEP90:12:30	35.44	746.00	2.81	345.90	29.54	0.00	35.80	35.17	54.82	39.31
07SEP90:12:45	36.05	784.00	0.72	91.10	27.97	0.00	35.77	34.71	54.37	39.43
07SEP90:13:00	36.91	815.00	0.76	63.62	26.15	0.00	36.58	36.14	56.49	.
07SEP90:13:15	36.21	843.00	1.58	323.40	25.37	0.00	36.78	35.75	56.87	.
07SEP90:13:30	36.36	857.00	1.84	330.50	24.80	0.00	36.86	35.25	56.04	.
07SEP90:13:45	36.37	872.00	1.79	345.90	24.44	0.00	37.96	36.78	56.84	.
07SEP90:14:00	37.23	893.00	0.47	10.31	23.13	0.00	37.81	37.33	57.07	.
07SEP90:14:15	36.72	900.00	3.33	318.00	22.60	0.00	38.74	37.08	57.89	.
07SEP90:14:30	36.79	910.00	2.43	272.60	22.10	0.00	38.82	36.84	57.58	.
07SEP90:14:45	37.45	916.00	1.97	317.70	20.96	0.00	38.86	37.14	56.40	.
07SEP90:15:00	37.99	919.00	1.43	15.94	20.41	0.00	39.30	37.54	55.75	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
07SEP90:15:15	37.58	912.00	1.84	300.70	19.89	0.00	39.73	37.82	54.96	.
07SEP90:15:30	38.11	901.00	1.93	267.30	19.42	0.00	40.43	38.21	54.50	.
07SEP90:15:45	38.13	886.00	1.89	311.70	19.67	0.00	41.16	39.17	55.22	.
07SEP90:16:00	38.26	864.00	2.61	333.50	19.05	0.00	40.57	38.87	53.90	.
07SEP90:16:15	38.09	833.00	2.57	324.90	18.79	0.00	40.47	37.69	52.05	.
07SEP90:16:30	38.49	802.00	3.98	352.40	18.11	0.00	41.63	39.28	52.11	.
07SEP90:16:45	38.78	794.00	1.95	335.30	17.76	0.00	41.14	38.36	50.14	.
07SEP90:17:00	38.94	767.00	1.77	280.40	17.48	0.00	41.19	38.17	48.05	.
07SEP90:17:15	38.97	727.00	1.96	176.60	17.23	0.00	42.32	39.39	48.17	.
07SEP90:17:30	39.12	687.80	2.43	174.80	17.22	0.00	42.24	39.28	46.51	.
07SEP90:17:45	38.81	645.90	1.87	294.60	17.18	0.00	41.50	39.22	44.14	.
07SEP90:18:00	39.28	604.30	2.03	264.10	16.71	0.00	42.72	39.52	43.69	.
07SEP90:18:15	38.70	553.80	1.11	6.43	16.80	0.00	42.28	39.14	41.54	.
07SEP90:18:30	39.48	496.20	2.12	292.40	16.46	0.00	42.47	39.38	40.33	.
07SEP90:18:45	39.65	441.60	3.33	289.30	16.27	0.00	41.95	38.71	38.16	.
07SEP90:19:00	39.21	394.60	1.38	324.70	16.30	0.00	40.96	37.78	35.98	.
07SEP90:19:15	39.31	346.10	1.18	331.60	16.11	0.00	40.85	38.11	35.45	.
07SEP90:19:30	39.13	262.60	1.87	138.60	16.00	0.00	40.61	38.20	34.97	.
07SEP90:19:45	39.39	217.30	0.66	169.70	15.83	0.00	40.37	38.06	34.42	.
07SEP90:20:00	38.86	168.80	2.37	182.70	15.86	0.00	40.06	37.94	33.94	.
07SEP90:20:15	38.99	136.40	0.70	157.00	15.85	0.00	39.70	37.69	33.25	.
07SEP90:20:30	38.96	86.50	1.01	298.70	15.83	0.00	39.35	37.36	32.73	.
07SEP90:20:45	38.43	36.58	2.18	186.80	16.11	0.00	39.10	37.13	32.19	.
07SEP90:21:00	37.95	7.65	2.83	207.50	15.74	0.00	38.87	36.99	31.73	.
07SEP90:21:15	37.61	1.42	2.58	213.20	15.82	0.00	38.51	36.81	31.40	.
07SEP90:21:30	37.36	0.59	2.41	269.00	15.77	0.00	38.19	36.58	30.95	.
07SEP90:21:45	37.22	0.51	3.98	263.60	15.45	0.00	37.91	36.40	30.74	.
07SEP90:22:00	36.87	0.54	3.10	265.70	15.88	0.00	37.56	36.13	30.18	.
07SEP90:22:15	36.47	0.61	2.93	266.50	16.30	0.00	37.29	35.92	29.89	.
07SEP90:22:30	36.27	0.71	2.37	262.90	16.50	0.00	37.03	35.74	29.68	.
07SEP90:22:45	36.08	0.61	2.21	264.60	16.73	0.00	36.77	35.53	29.39	.
07SEP90:23:00	36.03	0.54	1.77	278.60	16.92	0.00	36.09	35.05	28.87	.
07SEP90:23:15	35.59	0.64	0.35	312.60	17.29	0.00	35.98	34.87	28.51	.
07SEP90:23:30	34.68	0.54	2.02	131.60	19.48	0.00	35.82	34.70	28.28	.
07SEP90:23:45	34.48	1.88	2.12	141.70	20.34	0.00	35.35	34.34	28.01	.
08SEP90:00:00	34.31	0.64	2.30	158.00	21.81	0.00	35.17	34.11	27.67	.
08SEP90:00:15	34.09	0.66	2.33	150.10	23.24	0.00	34.91	33.89	27.65	.
08SEP90:00:30	33.93	0.51	1.73	151.90	24.27	0.00	34.64	33.66	27.53	.
08SEP90:00:45	34.20	0.51	0.98	169.70	23.86	0.00	34.34	33.42	27.27	.
08SEP90:01:00	34.25	0.73	0.35	125.90	23.53	0.00	33.95	33.05	26.86	.
08SEP90:01:15	33.88	0.66	0.44	94.50	24.04	0.00	33.75	32.83	26.77	.
08SEP90:01:30	33.70	0.59	0.61	77.90	24.63	0.00	33.55	32.71	26.55	.
08SEP90:01:45	33.27	0.69	0.94	69.79	25.33	0.00	33.30	32.59	26.48	.
08SEP90:02:00	33.22	0.56	1.01	84.80	26.08	0.00	33.03	32.30	26.31	.
08SEP90:02:15	32.33	0.54	1.07	97.10	30.61	0.00	32.64	31.94	25.95	.
08SEP90:02:30	31.90	0.51	0.89	86.50	32.86	0.00	32.51	31.85	25.84	.
08SEP90:02:45	32.02	0.51	1.93	89.60	33.18	0.00	32.09	31.50	25.57	.
08SEP90:03:00	32.06	0.69	1.51	92.30	33.02	0.00	31.89	31.33	25.42	.
08SEP90:03:15	31.65	0.69	1.38	77.40	34.26	0.00	31.79	31.30	25.34	.
08SEP90:03:30	31.45	0.76	1.65	91.70	34.98	0.00	31.55	31.10	25.18	.

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUD (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
08SEP90:03:45	31.38	0.66	1.64	94.90	35.30	0.00	31.23	30.81	24.93	.
08SEP90:04:00	31.23	1.32	1.20	78.00	35.89	0.00	31.03	30.65	24.80	.
08SEP90:04:15	31.30	1.66	1.32	74.90	35.53	0.00	30.77	30.43	24.51	.
08SEP90:04:30	31.19	1.54	1.50	85.20	35.47	0.00	30.63	30.30	24.44	.
08SEP90:04:45	31.47	1.59	0.93	68.09	34.58	0.00	30.47	30.22	24.32	.
08SEP90:05:00	31.47	1.35	0.59	93.00	34.07	0.00	30.01	29.80	23.94	.
08SEP90:05:15	31.86	1.40	0.65	94.60	32.98	0.00	29.87	29.61	23.80	.
08SEP90:05:30	31.56	1.08	1.08	80.20	33.44	0.00	29.80	29.56	23.66	.
08SEP90:05:45	30.62	1.08	1.03	102.20	35.38	0.00	29.50	29.36	23.58	.
08SEP90:06:00	30.58	1.23	0.98	93.20	35.24	0.00	29.49	29.32	23.41	.
08SEP90:06:15	30.79	1.27	1.70	93.90	35.06	0.00	29.14	29.01	23.19	.
08SEP90:06:30	29.84	1.10	1.72	84.70	38.64	0.00	29.03	28.91	23.30	.
08SEP90:06:45	30.10	1.08	0.97	76.00	37.38	0.00	29.44	29.18	23.92	.
08SEP90:07:00	31.24	0.96	0.67	84.40	33.70	0.00	29.70	29.43	25.06	.
08SEP90:07:15	31.86	0.91	0.76	93.90	31.93	0.00	29.86	29.82	26.34	.
08SEP90:07:30	31.95	0.79	0.71	65.34	31.55	0.00	29.96	30.12	27.81	.
08SEP90:07:45	31.54	0.98	1.33	9.70	32.50	0.00	29.93	30.02	29.44	.
08SEP90:08:00	30.52	1.03	1.46	10.97	34.85	0.00	30.08	30.05	31.26	.
08SEP90:08:15	31.08	2.65	0.69	51.01	33.43	0.00	31.22	30.75	33.47	.
08SEP90:08:30	30.75	9.03	0.56	71.30	33.87	0.00	31.62	30.82	35.52	.
08SEP90:08:45	30.81	23.67	0.73	90.20	33.70	0.00	31.43	31.39	37.38	.
08SEP90:09:00	31.62	75.50	1.01	49.39	32.09	0.00	30.94	31.33	38.67	.
08SEP90:09:15	32.53	126.80	0.73	41.44	30.38	0.00	31.73	31.75	40.95	.
08SEP90:09:30	33.58	174.70	0.67	46.96	29.40	0.00	33.00	32.56	43.24	.
08SEP90:09:45	32.90	225.90	0.83	38.53	30.25	0.00	33.09	32.66	44.90	.
08SEP90:10:00	34.17	278.30	0.37	62.67	29.41	0.00	33.11	32.71	45.72	.
08SEP90:10:15	34.35	331.20	0.61	21.43	30.09	0.00	33.30	33.18	47.32	.
08SEP90:10:30	34.47	384.70	0.20	23.80	29.34	0.00	33.83	33.78	49.27	.
08SEP90:10:45	34.63	438.20	0.89	351.20	27.09	0.00	34.03	34.08	50.83	.
08SEP90:11:00	34.96	488.00	1.02	3.04	25.90	0.00	34.27	34.09	51.59	.
08SEP90:11:15	36.19	537.10	0.67	45.86	23.42	0.00	34.88	34.37	52.28	.
08SEP90:11:30	37.16	586.30	0.31	96.80	19.07	0.00	35.31	34.97	53.38	.
08SEP90:11:45	36.62	628.80	2.28	163.80	20.09	0.00	35.89	35.56	54.61	.
08SEP90:12:00	36.84	672.30	1.79	172.60	18.12	0.00	35.92	35.47	54.36	.
08SEP90:12:15	37.01	714.00	2.06	187.30	18.36	0.00	37.20	36.32	55.91	.
08SEP90:12:30	37.61	750.00	2.03	173.90	17.64	0.00	37.19	36.88	55.87	41.37
08SEP90:12:45	37.68	784.00	2.32	191.00	16.69	0.00	37.14	37.03	55.49	40.64
08SEP90:13:00	38.04	815.00	1.73	195.20	15.63	0.00	38.42	37.42	56.74	41.10
08SEP90:13:15	38.01	844.00	2.28	182.40	15.45	0.00	38.09	37.59	56.41	41.15
08SEP90:13:30	38.43	867.00	2.69	189.50	15.07	0.00	39.45	38.58	57.64	41.78
08SEP90:13:45	38.94	884.00	3.01	174.80	14.31	0.00	39.31	38.37	57.36	41.94
08SEP90:14:00	39.25	898.00	3.81	168.10	13.92	0.00	39.72	38.64	57.77	41.55
08SEP90:14:15	39.45	908.00	3.32	182.00	13.44	0.00	40.03	38.64	57.81	41.48
08SEP90:14:30	39.58	919.00	2.26	158.60	12.88	0.00	40.24	39.06	57.50	41.57
08SEP90:14:45	39.87	918.00	2.90	156.30	12.62	0.00	40.81	39.39	56.93	41.63
08SEP90:15:00	39.90	918.00	4.13	152.20	12.04	0.00	40.64	38.76	54.33	40.67
08SEP90:15:15	39.79	915.00	1.62	146.70	11.97	0.00	41.04	39.19	54.45	41.61
08SEP90:15:30	40.29	904.00	2.97	176.10	11.56	0.00	41.54	39.36	53.40	41.56
08SEP90:15:45	40.72	891.00	3.12	172.20	11.30	0.00	42.17	40.36	53.68	41.56
08SEP90:16:00	40.62	869.00	2.89	149.90	10.95	0.00	42.02	40.94	51.69	40.69

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
08SEP90:16:15	40.96	846.00	3.17	140.30	10.61	0.00	42.35	41.12	51.38	40.56
08SEP90:16:30	41.24	826.00	2.65	152.30	10.12	0.00	43.11	41.35	51.14	40.56
08SEP90:16:45	41.17	802.00	2.64	120.30	9.89	0.00	42.32	40.55	49.53	39.70
08SEP90:17:00	41.33	770.00	3.22	196.10	9.64	0.00	42.70	40.91	48.35	39.68
08SEP90:17:15	41.10	732.00	3.30	202.50	9.63	0.00	43.39	40.99	47.35	39.46
08SEP90:17:30	40.72	692.90	3.25	172.10	9.69	0.00	43.06	40.83	45.63	38.63
08SEP90:17:45	41.28	654.10	0.49	300.80	9.39	0.00	42.85	40.31	43.52	38.17
08SEP90:18:00	41.69	606.50	1.82	239.10	9.13	0.00	42.67	40.02	41.34	37.62
08SEP90:18:15	41.52	562.60	3.83	156.40	9.19	0.00	42.88	40.27	39.93	37.11
08SEP90:18:30	41.26	512.30	3.95	168.50	9.11	0.00	42.95	40.27	38.40	36.32
08SEP90:18:45	40.99	461.70	2.77	166.10	9.00	0.00	42.64	40.04	37.03	35.34
08SEP90:19:00	41.42	410.40	2.52	184.40	8.30	0.00	42.39	39.78	35.75	34.20
08SEP90:19:15	41.52	354.40	1.66	274.10	8.18	0.00	42.16	39.76	34.80	33.43
08SEP90:19:30	41.36	267.00	2.29	184.00	8.30	0.00	41.93	39.66	34.02	33.20
08SEP90:19:45	41.70	236.60	1.16	218.20	8.25	0.00	41.61	39.52	33.44	33.20
08SEP90:20:00	40.92	169.10	3.31	198.90	8.65	0.00	41.31	39.34	32.91	33.30
08SEP90:20:15	40.40	131.90	4.54	182.90	9.01	0.00	40.94	39.14	32.45	33.25
08SEP90:20:30	39.89	76.10	4.27	181.60	9.37	0.00	40.58	38.89	31.94	33.04
08SEP90:20:45	39.49	30.22	4.47	186.00	9.61	0.00	40.23	38.62	31.57	32.92
08SEP90:21:00	39.02	6.83	3.89	185.60	9.91	0.00	39.84	38.32	31.08	32.41
08SEP90:21:15	38.67	1.11	3.76	179.30	10.02	0.00	39.46	38.03	30.67	31.43
08SEP90:21:30	38.08	0.32	3.18	170.60	10.49	0.00	39.14	37.81	30.29	30.96
08SEP90:21:45	37.80	0.39	3.37	166.50	10.72	0.00	38.82	37.61	29.97	30.76
08SEP90:22:00	37.35	0.22	3.14	164.90	11.10	0.00	38.24	37.16	29.42	30.56
08SEP90:22:15	36.31	0.32	3.21	161.90	11.54	0.00	37.82	36.79	28.93	29.72
08SEP90:22:30	36.96	0.37	3.25	157.30	11.44	0.00	37.80	36.70	28.64	29.46
08SEP90:22:45	36.73	0.22	3.32	159.50	11.74	0.00	37.48	36.44	28.54	29.50
08SEP90:23:00	36.44	0.10	3.07	162.70	11.95	0.00	37.04	36.05	28.22	29.60
08SEP90:23:15	36.37	0.25	2.75	170.50	11.87	0.00	36.63	35.61	27.89	29.80
08SEP90:23:30	36.27	0.27	2.01	175.00	11.72	0.00	36.45	35.50	27.82	29.77
08SEP90:23:45	36.54	0.34	1.55	192.30	11.29	0.00	36.05	35.14	27.45	29.43
09SEP90:00:00	36.43	0.37	0.79	216.00	11.18	0.00	35.72	34.85	27.34	28.69
09SEP90:00:15	35.89	0.12	0.23	292.70	11.48	0.00	35.45	34.64	27.14	29.44
09SEP90:00:30	36.04	0.12	0.52	119.50	11.36	0.00	35.17	34.40	26.93	29.47
09SEP90:00:45	35.42	0.39	1.17	89.20	11.87	0.00	34.73	34.13	26.60	29.28
09SEP90:01:00	35.54	0.25	1.00	68.47	11.50	0.00	34.42	33.77	26.08	28.05
09SEP90:01:15	34.94	0.27	1.12	86.40	12.50	0.00	34.06	33.44	25.77	27.78
09SEP90:01:30	34.57	.	1.05	90.70	12.57	0.00	33.97	33.39	25.78	27.52
09SEP90:01:45	33.97	0.25	1.10	69.42	13.72	0.00	33.46	32.95	25.54	27.31
09SEP90:02:00	33.03	0.15	1.88	89.00	17.35	0.00	33.41	32.85	25.48	27.18
09SEP90:02:15	32.73	0.10	2.80	108.10	20.27	0.00	32.97	32.53	25.32	27.32
09SEP90:02:30	33.28	0.03	2.78	149.70	16.88	0.00	32.74	32.26	25.02	27.08
09SEP90:02:45	33.01	0.25	1.96	144.90	16.25	0.00	32.33	31.94	24.73	26.91
09SEP90:03:00	32.82	0.20	2.03	116.10	16.39	0.00	32.16	31.80	24.73	27.09
09SEP90:03:15	32.12	0.05	2.27	99.40	19.21	0.00	32.10	31.82	24.73	26.70
09SEP90:03:30	31.32	0.00	1.31	61.04	22.79	0.00	31.76	31.54	24.56	26.93
09SEP90:03:45	30.95	0.00	1.12	80.60	23.25	0.00	31.39	31.20	24.38	26.48
09SEP90:04:00	30.69	0.07	1.63	83.50	23.40	0.00	31.18	30.93	24.15	26.20
09SEP90:04:15	30.68	0.25	1.57	83.50	22.84	0.00	30.96	30.78	24.05	25.87
09SEP90:04:30	30.81	0.05	0.88	90.40	22.21	0.00	30.62	30.45	23.74	25.93



DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
09SEP90:04:45	30.95	0.22	0.73	44.31	21.71	0.00	30.60	30.43	23.61	25.50
09SEP90:05:00	31.49	0.17	0.66	96.60	20.00	0.00	30.41	30.31	23.62	25.41
09SEP90:05:15	32.71	0.15	1.22	85.90	17.07	0.00	30.19	30.06	23.30	25.20
09SEP90:05:30	32.31	0.03	1.38	74.70	17.57	0.00	29.97	29.96	23.10	25.09
09SEP90:05:45	31.24	0.10	1.69	92.50	20.20	0.00	29.71	29.67	22.83	24.82
09SEP90:06:00	31.33	0.15	1.30	48.56	19.53	0.00	29.59	29.52	22.72	24.08
09SEP90:06:15	30.66	0.03	1.22	91.90	21.45	0.00	29.37	29.37	22.75	24.80
09SEP90:06:30	29.95	0.05	1.45	81.50	23.08	0.00	29.12	29.06	22.61	24.65
09SEP90:06:45	31.00	0.10	0.87	75.70	20.09	0.00	29.48	29.32	23.19	24.69
09SEP90:07:00	29.83	0.17	1.84	86.50	23.19	0.00	29.54	29.39	24.10	25.19
09SEP90:07:15	31.30	0.00	1.06	38.75	18.68	0.00	29.99	29.85	25.55	25.94
09SEP90:07:30	31.59	0.12	1.09	47.82	18.65	0.00	30.27	30.42	27.32	26.75
09SEP90:07:45	31.11	0.05	0.33	41.38	19.29	0.00	30.32	30.62	29.13	28.45
09SEP90:08:00	29.95	0.17	0.91	96.00	22.22	0.00	30.30	30.59	30.86	30.01
09SEP90:08:15	29.00	1.77	1.91	85.60	25.03	0.00	30.63	30.18	31.76	30.69
09SEP90:08:30	28.88	7.89	1.81	82.90	25.70	0.00	30.69	30.21	33.34	31.40
09SEP90:08:45	30.12	24.30	1.04	97.90	22.67	0.00	30.64	30.69	34.52	31.84
09SEP90:09:00	30.76	67.41	1.45	103.60	21.80	0.00	31.00	31.16	36.41	32.53
09SEP90:09:15	31.28	118.40	1.32	105.80	21.02	0.00	31.34	31.18	37.62	32.88
09SEP90:09:30	30.94	166.10	1.54	125.20	22.68	0.00	32.14	31.51	39.17	33.61
09SEP90:09:45	31.55	217.10	1.59	130.10	20.93	0.00	32.31	31.99	40.91	34.13
09SEP90:10:00	31.84	269.80	1.66	126.50	21.55	0.00	32.78	32.31	42.80	35.10
09SEP90:10:15	32.43	322.40	2.23	156.00	22.38	0.00	33.23	33.08	45.09	36.13
09SEP90:10:30	32.31	375.00	3.89	167.80	22.99	0.00	33.53	33.44	46.98	36.71
09SEP90:10:45	32.40	427.20	4.02	172.10	22.91	0.00	33.53	33.66	48.47	36.79
09SEP90:11:00	32.55	477.30	4.15	173.00	22.63	0.00	33.98	33.88	49.69	37.19
09SEP90:11:15	33.06	526.10	5.06	181.10	22.66	0.00	34.52	34.42	51.59	37.96
09SEP90:11:30	37.12	857.00	2.91	161.90	18.75	0.00	35.00	34.87	53.20	38.52
09SEP90:11:45	37.12	869.00	2.98	160.80	17.87	0.00	35.19	34.86	53.75	38.46
09SEP90:12:00	38.23	893.00	1.42	191.20	16.24	0.00	35.42	35.37	54.83	39.14
09SEP90:12:15	38.30	905.00	1.90	167.70	15.64	0.00	35.83	35.54	55.78	39.88
09SEP90:12:30	38.91	914.00	1.70	221.30	14.42	0.00	36.04	35.63	56.03	39.98
09SEP90:12:45	39.38	918.00	1.78	181.50	13.29	0.00	37.05	36.24	57.47	41.03
09SEP90:13:00	40.38	917.00	1.94	192.80	12.58	0.00	37.25	36.45	58.00	40.92
09SEP90:13:15	39.88	911.00	2.27	175.00	11.73	0.00	37.72	36.73	58.06	41.72
09SEP90:13:30	40.52	902.00	1.92	198.00	10.50	0.00	38.30	37.48	58.19	41.35
09SEP90:13:45	41.09	889.00	1.68	229.90	9.11	0.00	39.03	38.10	58.99	41.75
09SEP90:14:00	40.88	874.00	1.57	263.50	8.81	0.00	38.78	37.76	58.36	42.03
09SEP90:14:15	41.95	858.00	1.63	223.80	7.55	0.00	39.48	38.21	57.75	42.06
09SEP90:14:30	41.52	829.00	2.44	180.90	7.68	0.00	40.42	39.31	58.44	41.85
09SEP90:14:45	41.69	797.00	1.24	189.10	7.74	0.00	40.36	39.48	58.09	42.12
09SEP90:15:00	42.11	764.00	3.30	139.60	7.56	0.00	40.54	39.22	57.12	41.85
09SEP90:15:15	41.83	732.00	3.39	155.10	7.60	0.00	40.82	38.98	56.16	41.73
09SEP90:15:30	41.99	692.00	3.92	142.70	7.44	0.00	41.66	39.89	56.27	41.99
09SEP90:15:45	41.91	648.80	2.67	124.30	7.32	0.00	42.13	40.53	55.90	41.47
09SEP90:16:00	41.84	603.10	2.36	137.40	7.33	0.00	41.56	40.07	53.77	40.77
09SEP90:16:15	42.12	556.40	1.91	172.70	7.36	0.00	42.35	40.01	53.79	41.26
09SEP90:16:30	41.78	505.60	3.15	181.80	7.44	0.00	42.89	41.09	53.23	41.36
09SEP90:16:45	42.22	451.30	1.97	191.40	7.19	0.00	42.17	40.45	50.83	40.54
09SEP90:17:00	42.63	399.70	0.33	256.40	6.92	0.00	43.03	40.99	49.42	40.31

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
09SEP90:17:15	42.30	344.70	2.64	142.40	7.03	0.00	43.11	40.93	47.97	39.85
09SEP90:17:30	42.18	252.80	2.11	244.30	7.16	0.00	42.95	40.59	46.04	39.08
09SEP90:17:45	41.98	223.50	2.07	190.40	7.27	0.00	43.91	41.11	45.33	39.04
09SEP90:18:00	41.66	159.30	2.80	165.00	7.39	0.00	43.95	41.27	43.53	38.19
09SEP90:18:15	41.30	123.60	3.17	176.30	7.67	0.00	44.10	41.28	41.95	37.53
09SEP90:18:30	41.04	71.10	2.64	176.40	7.80	0.00	43.59	40.85	39.82	36.21
09SEP90:18:45	40.70	27.52	2.74	169.60	7.94	0.00	43.58	40.62	38.33	35.18
09SEP90:19:00	40.16	5.58	2.97	193.60	8.27	0.00	42.95	40.14	36.62	34.06
09SEP90:19:15	39.62	0.96	4.23	196.30	8.53	0.00	42.75	40.07	35.60	33.92
09SEP90:19:30	39.17	0.29	4.16	191.60	8.60	0.00	42.59	40.08	34.85	33.68
09SEP90:19:45	38.69	0.71	3.74	177.80	8.69	0.00	42.28	39.95	34.09	33.35
09SEP90:20:00	38.01	0.25	2.93	166.80	9.18	0.00	42.03	39.77	33.48	32.82
09SEP90:20:15	38.13	0.42	3.20	164.00	9.10	0.00	41.71	39.60	33.01	33.11
09SEP90:20:30	37.45	3.05	2.86	150.90	9.53	0.00	41.39	39.42	32.65	33.38
09SEP90:20:45	37.50	0.22	3.12	153.80	9.48	0.00	41.05	39.20	32.29	33.33
09SEP90:21:00	37.47	0.34	2.91	163.40	9.56	0.00	40.67	38.96	31.88	32.85
09SEP90:21:15	37.32	0.37	2.75	170.10	9.74	0.00	40.28	38.62	31.42	31.69
09SEP90:21:30	37.03	0.29	2.23	173.90	9.93	0.00	39.94	38.38	31.04	31.57
09SEP90:21:45	37.04	0.44	1.53	231.50	10.00	0.00	39.34	38.00	30.48	31.52
09SEP90:22:00	36.11	0.29	0.50	81.00	10.80	0.00	39.11	37.74	29.84	30.82
09SEP90:22:15	35.71	0.20	1.77	98.40	11.38	0.00	38.84	37.49	29.64	30.40
09SEP90:22:30	35.65	0.37	2.63	116.30	11.67	0.00	38.68	37.34	29.78	31.06
09SEP90:22:45	35.30	0.32	2.37	101.70	12.00	0.00	38.22	37.10	29.15	30.52
09SEP90:23:00	35.14	0.17	1.66	110.90	12.38	0.00	37.83	36.69	28.87	29.66
09SEP90:23:15	34.32	0.10	2.25	91.50	13.43	0.00	37.53	36.39	28.54	29.34
09SEP90:23:30	33.87	0.32	2.70	86.30	14.82	0.00	37.15	35.99	28.22	29.16
09SEP90:23:45	34.63	0.00	3.10	95.90	16.28	0.00	36.81	35.81	28.24	29.44
10SEP90:00:00	32.97	0.07	3.03	93.20	22.07	0.00	36.49	35.52	27.93	29.60
10SEP90:00:15	32.97	0.12	2.41	80.00	25.30	0.00	36.14	35.22	27.75	28.98
10SEP90:00:30	32.53	0.12	2.65	92.20	27.18	0.00	35.78	34.82	27.29	28.84
10SEP90:00:45	32.67	0.03	0.81	72.70	28.54	0.00	35.12	34.25	26.91	28.17
10SEP90:01:00	32.04	0.34	1.65	0.48	29.37	0.00	35.06	34.10	26.69	27.57
10SEP90:01:15	32.51	0.20	0.85	84.80	29.28	0.00	35.00	34.01	26.55	27.32
10SEP90:01:30	31.43	0.03	2.05	84.70	31.21	0.00	34.73	33.86	26.52	27.73
10SEP90:01:45	31.49	.	1.61	90.90	32.01	0.00	34.32	33.59	26.36	28.17
10SEP90:02:00	31.66	.	1.64	86.20	32.36	0.00	33.70	33.02	26.00	27.78
10SEP90:02:15	31.43	.	1.49	81.80	32.50	0.00	33.74	33.01	26.01	27.68
10SEP90:02:30	31.12	.	1.42	82.90	32.47	0.00	33.32	32.67	25.70	27.93
10SEP90:02:45	30.63	.	1.81	86.20	32.69	0.00	32.98	32.37	25.49	27.32
10SEP90:03:00	31.12	.	1.37	78.00	32.03	0.00	32.67	32.12	25.34	27.66
10SEP90:03:15	30.90	0.12	1.56	76.90	32.56	0.00	32.42	31.88	25.05	26.91
10SEP90:03:30	31.42	0.10	1.86	86.10	31.74	0.00	32.07	31.60	24.71	26.42
10SEP90:03:45	30.80	.	1.73	92.90	32.32	0.00	31.71	31.29	24.44	25.81
10SEP90:04:00	31.03	0.27	1.57	79.70	32.05	0.00	31.49	31.09	24.20	25.63
10SEP90:04:15	32.23	0.29	0.90	95.60	30.23	0.00	31.27	30.86	23.96	25.50
10SEP90:04:30	32.16	0.34	0.79	114.00	30.14	0.00	31.23	30.79	23.97	25.55
10SEP90:04:45	31.34	0.39	1.29	81.70	31.56	0.00	31.02	30.65	23.88	25.42
10SEP90:05:00	31.07	0.44	0.89	65.41	32.08	0.00	30.48	30.18	23.50	25.88
10SEP90:05:15	30.95	0.37	0.93	47.49	32.34	0.00	30.34	30.06	23.29	25.28
10SEP90:05:30	30.91	0.29	1.40	25.26	32.34	0.00	30.28	29.98	23.26	25.10

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
10SEP90:05:45	31.82	0.42	1.57	25.53	31.00	0.00	29.92	29.67	22.91	24.65
10SEP90:06:00	31.74	0.64	1.84	8.59	31.06	0.00	29.54	29.39	22.67	24.49
10SEP90:06:15	31.12	2.08	1.09	331.80	31.85	0.00	29.34	29.19	22.43	23.92
10SEP90:06:30	30.74	7.73	1.00	9.11	32.43	0.00	29.25	29.07	22.43	23.77
10SEP90:06:45	30.30	25.64	0.71	116.70	33.48	0.00	29.57	29.37	23.06	24.25
10SEP90:07:00	29.81	69.26	1.68	83.90	33.08	0.00	29.82	29.64	24.21	25.23
10SEP90:07:15	31.40	121.50	0.94	95.70	31.03	0.00	29.67	29.63	25.32	26.14
10SEP90:07:30	32.02	170.50	0.70	70.10	30.01	0.00	30.00	30.12	27.04	26.97
10SEP90:07:45	32.29	221.50	0.97	89.40	30.85	0.00	30.22	30.35	29.01	28.61
10SEP90:08:00	32.00	274.00	1.70	101.60	30.36	0.00	30.44	30.71	31.04	30.16
10SEP90:08:15	32.80	327.50	1.22	138.70	29.61	0.00	31.05	30.67	32.96	31.05
10SEP90:08:30	33.19	381.10	1.45	164.60	29.45	0.00	31.09	30.80	34.46	31.73
10SEP90:08:45	33.62	432.10	1.49	186.00	29.38	0.00	30.93	31.20	36.19	32.09
10SEP90:09:00	34.16	485.60	1.52	194.10	28.64	0.00	31.28	31.39	38.29	33.30
10SEP90:09:15	34.79	534.90	2.24	166.80	27.70	0.00	31.65	31.62	40.24	34.13
10SEP90:09:30	35.17	581.80	2.23	174.20	25.92	0.00	32.39	31.71	41.56	34.69
10SEP90:09:45	35.38	628.90	1.47	207.40	24.54	0.00	32.58	32.11	43.16	35.15
10SEP90:10:00	36.33	672.10	1.50	210.10	23.09	0.00	32.63	31.53	44.58	35.86
10SEP90:10:15	36.85	713.00	1.27	220.30	21.21	0.00	33.22	32.75	46.37	36.52
10SEP90:10:30	37.27	750.00	1.87	184.00	20.28	0.00	33.75	33.57	48.61	37.63
10SEP90:10:45	37.79	785.00	1.12	267.20	17.52	0.00	34.23	33.72	50.58	38.66
10SEP90:11:00	39.17	817.00	1.06	292.90	14.11	0.00	34.64	34.17	52.35	39.80
10SEP90:11:15	39.67	843.00	1.78	282.20	11.22	0.00	35.36	35.15	54.28	40.44
10SEP90:11:30	40.57	867.00	1.90	211.00	9.60	0.00	34.86	35.02	54.30	40.36
10SEP90:11:45	40.73	883.00	3.45	166.20	9.92	0.00	35.92	35.72	55.88	41.54
10SEP90:12:00	41.40	896.00	3.60	171.60	8.92	0.00	36.13	35.98	56.02	41.48
10SEP90:12:15	41.80	909.00	2.12	256.30	7.75	0.00	36.92	36.44	57.31	42.23
10SEP90:12:30	42.02	918.00	3.79	293.90	6.97	0.00	37.60	37.11	58.18	42.53
10SEP90:12:45	41.97	923.00	2.38	299.90	6.85	0.00	37.77	37.42	57.76	43.61
10SEP90:13:00	42.04	922.00	2.93	331.80	6.73	0.00	38.42	38.23	59.33	43.90
10SEP90:13:15	42.85	918.00	1.30	32.94	6.44	0.00	39.19	39.03	60.21	43.65
10SEP90:13:30	42.85	907.00	2.77	348.50	6.37	0.00	38.91	38.73	59.61	43.98
10SEP90:13:45	43.46	893.00	0.60	27.34	6.11	0.00	40.04	39.67	60.32	44.15
10SEP90:14:00	43.82	877.00	1.10	9.39	5.94	0.00	40.39	39.95	60.13	43.81
10SEP90:14:15	43.21	853.00	2.51	320.40	6.09	0.00	40.81	40.25	60.26	43.90
10SEP90:14:30	43.73	823.00	2.07	270.30	5.90	0.00	40.78	40.02	58.78	44.18
10SEP90:14:45	43.91	793.00	1.08	251.40	5.83	0.00	41.49	40.72	57.93	43.89
10SEP90:15:00	43.90	764.00	0.57	326.00	5.83	0.00	42.08	41.38	58.48	43.78
10SEP90:15:15	43.68	728.00	2.17	247.40	5.85	0.00	42.28	41.47	58.00	43.60
10SEP90:15:30	43.66	686.30	3.15	296.60	5.86	0.00	41.97	41.17	55.20	42.59
10SEP90:15:45	43.34	643.20	4.16	284.60	5.95	0.00	42.92	42.24	55.38	42.91
10SEP90:16:00	43.65	598.60	4.04	275.20	5.87	0.00	42.61	41.16	53.59	43.20
10SEP90:16:15	43.49	553.40	2.46	261.20	5.93	0.00	42.91	41.66	52.18	42.80
10SEP90:16:30	43.27	501.50	3.21	323.90	5.99	0.00	44.41	43.62	52.90	42.42
10SEP90:16:45	43.42	448.40	3.53	285.30	6.05	0.00	43.38	42.04	51.19	41.63
10SEP90:17:00	43.60	391.40	2.00	263.40	5.96	0.00	43.65	42.38	49.80	41.49
10SEP90:17:15	43.20	337.90	2.96	286.90	6.06	0.00	44.68	42.89	49.48	41.54
10SEP90:17:30	42.99	248.00	2.69	265.60	6.17	0.00	44.02	41.94	47.05	40.97
10SEP90:17:45	43.03	215.10	3.04	274.60	6.15	0.00	44.39	42.28	45.28	40.92
10SEP90:18:00	42.93	159.30	1.76	286.30	6.19	0.00	44.67	42.61	44.01	39.98

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
10SEP90:18:15	42.90	117.70	1.48	278.90	6.20	0.00	44.00	42.60	41.74	38.37
10SEP90:18:30	42.28	65.74	1.29	278.10	6.46	0.00	44.07	42.48	40.01	37.55
10SEP90:18:45	42.28	25.69	0.84	242.60	6.55	0.00	43.70	42.05	38.30	36.14
10SEP90:19:00	41.34	4.79	1.90	197.60	7.01	0.00	42.84	41.58	37.00	34.95
10SEP90:19:15	40.47	0.93	4.04	187.40	7.56	0.00	43.17	41.50	36.09	34.97
10SEP90:19:30	39.88	0.59	3.95	183.10	7.85	0.00	43.25	41.37	35.14	34.49
10SEP90:19:45	39.34	0.34	3.91	177.50	8.14	0.00	42.99	41.21	34.57	34.77
10SEP90:20:00	38.68	0.42	3.76	164.80	8.48	0.00	42.72	41.03	34.04	35.04
10SEP90:20:15	38.55	0.64	3.51	162.80	8.65	0.00	42.30	40.77	33.53	34.73
10SEP90:20:30	38.13	0.29	3.50	158.80	8.94	0.00	41.92	40.47	33.04	34.62
10SEP90:20:45	37.85	3.12	3.48	153.90	9.10	0.00	41.53	40.19	32.45	34.38
10SEP90:21:00	37.79	0.32	3.46	162.30	9.06	0.00	41.10	39.89	31.98	33.82
10SEP90:21:15	37.71	0.15	2.72	188.90	9.03	0.00	40.62	39.53	31.40	32.38
10SEP90:21:30	38.02	0.17	2.41	201.30	8.83	0.00	40.27	39.22	30.88	31.88
10SEP90:21:45	37.45	0.25	2.37	198.20	9.06	0.00	39.87	38.89	30.40	31.44
10SEP90:22:00	37.62	0.22	1.84	199.00	8.94	0.00	39.26	38.35	29.62	31.37
10SEP90:22:15	37.56	0.17	1.07	198.20	8.92	0.00	39.00	38.10	29.11	30.62
10SEP90:22:30	37.06	0.20	0.42	185.00	9.11	0.00	38.89	37.91	28.66	29.90
10SEP90:22:45	36.74	0.22	0.39	125.80	9.21	0.00	38.47	37.56	28.30	29.61
10SEP90:23:00	36.53	0.32	0.76	102.50	9.36	0.00	38.10	37.31	28.24	29.27
10SEP90:23:15	35.93	0.15	0.57	92.90	9.63	0.00	37.64	36.84	27.72	29.46
10SEP90:23:30	35.48	0.15	0.93	75.90	9.98	0.00	37.08	36.28	27.30	29.12
10SEP90:23:45	34.84	0.10	1.80	97.00	10.69	0.00	37.00	36.22	27.17	29.22
11SEP90:00:00	34.80	0.05	1.72	99.80	10.85	0.00	36.23	35.51	26.67	29.03
11SEP90:00:15	35.52	0.05	1.51	91.50	10.25	0.00	35.94	35.14	26.30	28.21
11SEP90:00:30	35.66	0.25	0.87	89.20	10.01	0.00	35.91	35.05	26.21	28.45
11SEP90:00:45	35.68	0.15	1.00	79.80	10.01	0.00	35.53	34.80	26.06	28.52
11SEP90:01:00	33.53	0.15	1.62	84.10	12.59	0.00	35.16	34.47	25.97	28.13
11SEP90:01:15	33.51	0.20	1.24	82.80	12.68	0.00	34.67	34.08	25.72	28.34
11SEP90:01:30	34.03	0.12	1.18	67.08	11.92	0.00	34.29	33.75	25.49	28.24
11SEP90:01:45	34.43	0.12	0.91	82.70	11.33	0.00	33.81	33.31	25.16	28.08
11SEP90:02:00	34.42	0.17	1.17	70.50	11.29	0.00	33.78	33.19	25.01	27.39
11SEP90:02:15	34.13	0.12	1.21	74.10	11.51	0.00	33.31	32.85	24.80	27.69
11SEP90:02:30	33.48	.	1.13	90.80	12.14	0.00	33.08	32.60	24.55	27.78
11SEP90:02:45	34.38	.	0.92	91.60	11.13	0.00	32.83	32.41	24.30	27.20
11SEP90:03:00	33.33	.	1.22	84.60	12.17	0.00	32.53	32.17	24.06	26.40
11SEP90:03:15	31.09	.	2.29	88.60	15.12	0.00	32.08	31.74	23.75	26.60
11SEP90:03:30	33.24	1.47	1.29	87.00	12.41	0.00	31.86	31.51	23.46	26.06
11SEP90:03:45	33.05	.	1.20	29.28	12.66	0.00	31.64	31.37	23.40	25.95
11SEP90:04:00	33.56	0.12	0.67	66.95	11.96	0.00	31.35	31.05	23.15	25.52
11SEP90:04:15	33.69	0.07	0.87	86.80	11.69	0.00	31.13	30.76	22.84	25.35
11SEP90:04:30	32.97	0.34	1.54	88.40	12.16	0.00	30.84	30.59	22.69	25.30
11SEP90:04:45	32.41	0.27	2.06	87.10	12.62	0.00	30.66	30.41	22.48	25.03
11SEP90:05:00	32.41	0.25	2.01	97.80	12.63	0.00	30.25	30.00	22.31	24.94
11SEP90:05:15	32.76	0.34	1.07	78.70	12.25	0.00	30.14	29.81	22.12	24.73
11SEP90:05:30	32.97	0.54	0.93	356.50	12.01	0.00	29.81	29.63	21.92	24.19
11SEP90:05:45	32.99	0.52	0.35	294.70	11.87	0.00	29.78	29.55	21.87	24.28
11SEP90:06:00	32.93	0.54	0.24	317.40	11.77	0.00	29.66	29.41	21.81	24.64
11SEP90:06:15	33.14	1.84	0.45	19.03	11.48	0.00	29.35	29.28	21.74	24.54
11SEP90:06:30	32.67	7.61	0.41	57.21	11.90	0.00	28.87	28.78	21.57	24.38

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
11SEP90:06:45	32.36	27.28	0.44	58.35	12.08	0.00	29.12	28.92	21.95	24.27
11SEP90:07:00	32.86	68.64	0.93	32.23	11.64	0.00	29.32	29.23	23.00	24.78
11SEP90:07:15	32.25	121.10	0.51	32.01	12.09	0.00	24.99	25.52	25.98	28.01
11SEP90:07:30	34.20	170.80	0.09	46.34	10.96	0.00	26.03	26.27	26.47	28.63
11SEP90:07:45	.	.	.	.	.	.	27.94	27.78	27.66	29.14
11SEP90:08:00	33.70	275.60	0.69	131.90	12.28	0.00	29.96	29.14	28.64	29.68
11SEP90:08:15	33.52	330.10	0.79	102.20	12.79	0.00	31.95	30.26	29.40	30.35
11SEP90:08:30	35.29	384.30	0.55	86.10	11.26	0.00	34.05	31.50	30.50	31.52
11SEP90:08:45	36.11	438.90	0.26	77.00	11.05	0.00	36.10	32.40	31.70	32.47
11SEP90:09:00	36.85	491.50	0.28	13.59	10.64	0.00	37.94	33.66	32.63	33.36
11SEP90:09:15	37.23	543.00	0.16	189.20	10.06	0.00	39.30	34.25	33.18	34.15
11SEP90:09:30	37.64	590.70	1.15	178.90	9.54	0.00	40.28	34.55	33.44	34.91
11SEP90:09:45	37.88	636.10	1.84	193.70	9.00	0.00	41.11	35.16	34.03	35.54
11SEP90:10:00	38.69	682.80	1.10	234.80	8.40	0.00	42.84	36.39	35.54	36.34
11SEP90:10:15	39.32	722.00	1.34	232.30	8.22	0.00	43.36	36.66	35.94	36.82
11SEP90:10:30	39.45	759.00	1.19	244.60	8.01	0.00	44.52	37.53	37.33	37.81
11SEP90:10:45	40.28	793.00	2.23	201.80	7.59	0.00	46.13	38.34	38.82	38.94
11SEP90:11:00	40.29	824.00	2.31	198.50	7.49	0.00	46.95	38.74	39.58	39.49
11SEP90:11:15	40.91	850.00	1.77	187.70	7.17	0.00	47.89	39.30	40.82	40.27
11SEP90:11:30	41.02	864.00	1.71	217.90	7.12	0.00	48.49	39.50	41.72	40.77
11SEP90:11:45	41.77	882.00	2.49	206.60	6.81	0.00	49.07	40.02	42.73	41.35
11SEP90:12:00	41.73	900.00	2.83	204.30	6.72	0.00	49.25	40.39	43.58	41.71
11SEP90:12:15	42.29	912.00	2.25	228.10	6.43	0.00	49.77	40.78	44.62	42.61
11SEP90:12:30	42.55	923.00	2.67	251.80	6.27	0.00	50.54	41.48	45.24	37.48
11SEP90:12:45	43.01	927.00	2.73	220.80	6.06	0.00	50.78	41.30	45.77	38.19
11SEP90:13:00	42.87	927.00	2.71	219.70	6.04	0.00	50.85	41.39	46.11	38.62
11SEP90:13:15	43.24	921.00	2.50	275.20	5.88	0.00	50.90	41.55	46.30	39.02
11SEP90:13:30	43.50	917.00	3.22	251.50	5.80	0.00	50.76	42.20	46.81	39.05
11SEP90:13:45	43.41	903.00	2.86	258.90	5.71	0.00	50.64	41.93	47.04	40.02
11SEP90:14:00	43.39	885.00	3.75	205.90	5.71	0.00	51.14	42.26	47.49	40.95
11SEP90:14:15	43.83	865.00	3.68	201.60	5.57	0.00	50.36	41.51	47.00	41.12
11SEP90:14:30	43.60	836.00	1.68	223.20	5.61	0.00	50.88	41.43	47.31	41.91
11SEP90:14:45	44.57	807.00	1.73	210.70	5.24	0.00	50.64	41.78	47.05	41.48
11SEP90:15:00	44.07	780.00	2.68	205.60	5.40	0.00	49.76	41.36	46.09	41.58
11SEP90:15:15	43.67	747.00	3.44	171.20	5.51	0.00	50.17	41.67	45.58	42.40
11SEP90:15:30	44.30	711.00	3.63	195.80	4.98	0.00	48.17	41.08	43.44	46.21
11SEP90:15:45	44.00	668.60	5.02	175.60	5.31	0.00	48.25	41.88	43.42	46.16
11SEP90:16:00	44.24	622.60	3.12	200.50	5.22	0.00	47.60	41.64	42.77	46.32
11SEP90:16:15	44.49	577.10	3.79	217.90	5.13	0.00	46.76	41.31	42.00	45.81
11SEP90:16:30	44.39	525.70	2.11	233.40	5.17	0.00	46.14	42.00	41.65	45.56
11SEP90:16:45	44.07	472.90	3.06	187.60	5.38	0.00	45.44	41.54	41.56	46.13
11SEP90:17:00	44.06	418.40	1.83	156.60	5.28	0.00	44.62	40.60	40.95	45.84
11SEP90:17:15	43.76	359.40	3.22	186.40	5.39	0.00	43.42	40.61	40.28	45.42
11SEP90:17:30	43.98	224.80	3.03	226.80	5.32	0.00	41.97	39.26	39.28	44.67
11SEP90:17:45	43.87	224.30	2.30	211.30	5.37	0.00	41.00	39.81	38.94	44.10
11SEP90:18:00	43.46	183.60	3.57	207.10	5.50	0.00	39.89	38.75	38.52	43.64
11SEP90:18:15	43.11	138.00	4.55	210.90	5.64	0.00	38.74	38.92	37.99	43.14
11SEP90:18:30	42.62	77.40	4.66	209.80	5.80	0.00	37.41	37.96	37.30	42.67
11SEP90:18:45	42.18	26.80	3.46	209.70	5.94	0.00	35.88	36.50	36.33	41.87
11SEP90:19:00	41.60	4.47	3.57	209.50	6.19	0.00	33.94	35.35	35.06	41.03

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
11SEP90:19:15	41.03	0.93	2.22	216.50	6.38	0.00	32.44	33.79	34.13	40.52
11SEP90:19:30	40.48	0.49	2.26	207.70	6.53	0.00	31.51	32.97	33.61	40.03
11SEP90:19:45	39.49	0.37	0.71	335.80	6.93	0.00	31.83	34.50	34.11	39.73
11SEP90:20:00	38.05	0.54	2.29	133.10	7.49	0.00	32.75	35.66	34.92	39.61
11SEP90:20:15	37.42	0.54	5.80	164.70	12.94	0.00	33.33	35.61	35.37	39.14
11SEP90:20:30	36.11	.	7.30	175.40	26.86	0.00	32.88	34.66	34.83	38.64
11SEP90:20:45	35.77	1.99	6.68	177.20	30.20	0.00	32.41	34.07	34.38	38.08
11SEP90:21:00	35.35	3.22	5.83	182.30	31.89	0.00	31.83	33.45	33.91	37.56
11SEP90:21:15	34.86	0.27	4.38	182.20	33.33	0.00	31.46	33.05	33.55	37.02
11SEP90:21:30	34.46	0.37	2.51	175.10	34.56	0.00	30.71	32.16	32.88	36.57
11SEP90:21:45	.	.	.	.	.	.	30.02	31.58	32.31	36.23
11SEP90:22:00	34.02	0.15	2.12	170.80	35.90	0.00	29.90	31.41	32.26	35.88
11SEP90:22:15	33.57	.	2.24	148.00	36.64	0.00	29.33	31.09	31.75	35.50
11SEP90:22:30	33.32	0.25	2.98	168.30	37.03	0.00	29.07	30.75	31.55	35.17
11SEP90:22:45	32.87	0.12	3.70	156.80	37.59	0.00	29.19	31.03	31.60	34.91
11SEP90:23:00	32.55	0.17	3.41	155.30	38.17	0.00	29.08	30.70	31.48	34.53
11SEP90:23:15	32.61	0.34	2.90	150.40	38.68	0.00	28.62	30.16	31.01	34.11
11SEP90:23:30	32.08	0.29	2.04	145.80	39.26	0.00	27.92	29.48	30.36	33.67
11SEP90:23:45	31.62	0.32	3.48	117.00	40.31	0.00	28.40	30.40	30.70	33.62
12SEP90:00:00	31.79	0.17	2.85	115.30	40.30	0.00	28.14	29.98	30.44	33.27
12SEP90:00:15	31.51	0.12	2.87	103.20	41.03	0.00	27.65	29.60	29.95	32.86
12SEP90:00:30	31.21	0.25	3.34	116.40	41.46	0.00	27.34	29.46	29.69	32.53
12SEP90:00:45	31.05	0.29	3.03	117.10	40.06	0.00	27.14	29.50	29.51	32.21
12SEP90:01:00	31.25	0.12	2.96	131.30	37.39	0.00	26.58	29.20	29.05	31.84
12SEP90:01:15	31.03	0.07	2.18	132.80	36.46	0.00	25.80	28.66	28.39	31.46
12SEP90:01:30	31.05	0.25	1.96	135.80	35.71	0.00	25.47	27.51	28.09	31.01
12SEP90:01:45	31.12	.	2.05	97.50	34.78	0.00	24.83	26.52	27.45	30.60
12SEP90:02:00	30.89	.	1.81	93.50	34.80	0.00	24.46	26.14	27.08	30.29
12SEP90:02:15	30.70	.	2.40	112.50	34.91	0.00	24.14	25.97	26.72	30.05
12SEP90:02:30	30.23	0.10	1.95	94.30	35.45	0.00	24.09	26.23	26.72	29.87
12SEP90:02:45	30.65	0.12	1.48	94.40	34.40	0.00	23.90	25.66	26.43	29.36
12SEP90:03:00	30.66	0.10	1.74	94.20	34.11	0.00	23.52	24.98	26.05	29.23
12SEP90:03:15	29.91	0.10	0.97	78.60	35.29	0.00	23.77	25.26	26.16	29.07
12SEP90:03:30	29.81	0.34	0.74	97.50	35.14	0.00	23.53	25.13	25.80	28.59
12SEP90:03:45	29.93	0.29	1.44	82.00	34.68	0.00	23.11	24.87	25.46	28.45
12SEP90:04:00	28.98	0.44	2.67	104.60	36.58	0.00	23.28	26.16	25.63	28.50
12SEP90:04:15	29.26	0.37	2.71	136.40	36.30	0.00	23.12	25.73	25.51	28.23
12SEP90:04:30	29.17	0.34	2.87	170.60	36.80	0.00	23.05	24.83	25.38	27.91
12SEP90:04:45	28.58	0.49	0.77	109.00	37.21	0.00	22.93	24.56	25.13	27.71
12SEP90:05:00	28.69	0.52	0.59	98.00	36.66	0.00	22.22	23.66	24.44	27.35
12SEP90:05:15	28.55	0.32	0.44	88.50	36.52	0.00	21.98	23.40	24.14	26.98
12SEP90:05:30	28.73	0.47	0.79	11.99	36.41	0.00	21.72	23.10	23.95	26.77
12SEP90:05:45	28.04	0.47	1.33	347.50	37.41	0.00	21.58	22.81	23.86	26.75
12SEP90:06:00	28.28	0.59	0.95	5.05	37.30	0.00	21.53	22.73	23.83	26.71
12SEP90:06:15	28.34	1.72	1.01	36.55	37.32	0.00	21.87	23.07	23.95	26.52
12SEP90:06:30	27.94	7.60	1.87	8.99	38.86	0.00	21.83	23.00	23.81	26.31
12SEP90:06:45	28.06	26.07	1.39	20.11	39.02	0.00	22.20	23.28	24.09	26.68
12SEP90:07:00	28.10	62.87	1.24	9.40	39.64	0.00	23.24	24.20	24.74	26.91
12SEP90:07:15	27.79	112.10	1.90	357.60	41.40	0.00	24.25	24.71	25.31	26.96
12SEP90:07:30	28.93	161.90	0.70	52.06	40.57	0.00	25.65	25.69	26.03	27.54

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
12SEP90:07:45	29.01	211.80	1.35	88.10	39.00	0.00	27.30	26.93	27.13	28.05
12SEP90:08:00	29.95	263.10	0.76	88.70	37.91	0.00	28.97	28.12	27.84	28.48
12SEP90:08:15	31.25	318.00	0.60	77.20	36.67	0.00	30.82	28.98	28.59	29.24
12SEP90:08:30	31.34	371.60	1.55	91.90	36.10	0.00	32.66	29.63	29.44	30.10
12SEP90:08:45	31.60	423.70	1.63	120.00	35.36	0.00	33.85	30.28	29.86	30.90
12SEP90:09:00	31.54	474.80	1.77	119.20	36.05	0.00	34.93	30.91	30.34	31.42
12SEP90:09:15	32.41	522.50	3.10	161.00	37.43	0.00	36.03	31.36	31.15	32.08
12SEP90:09:30	32.55	570.00	3.43	166.60	38.40	0.00	37.63	32.37	32.04	32.99
12SEP90:09:45	32.67	612.70	3.45	182.50	38.60	0.00	38.60	32.89	32.68	33.55
12SEP90:10:00	32.94	657.50	3.71	179.00	38.14	0.00	39.36	33.26	33.36	33.77
12SEP90:10:15	33.26	693.80	4.66	180.40	37.31	0.00	40.37	33.91	34.18	34.39
12SEP90:10:30	33.91	734.00	4.30	180.50	36.30	0.00	40.91	34.14	34.96	34.85
12SEP90:10:45	34.56	770.00	4.06	176.10	35.37	0.00	42.03	34.66	36.18	35.77
12SEP90:11:00	34.34	798.00	4.89	183.90	35.25	0.00	42.63	34.95	36.96	36.19
12SEP90:11:15	34.61	825.00	4.73	176.50	35.20	0.00	43.42	35.39	38.32	37.17
12SEP90:11:30	35.21	849.00	4.72	179.00	34.09	0.00	44.57	35.59	39.30	37.98
12SEP90:11:45	35.82	866.00	3.46	200.10	33.49	0.00	45.56	35.91	39.97	38.47
12SEP90:12:00	35.60	877.00	4.05	164.40	34.72	0.00	46.45	35.77	41.21	39.39
12SEP90:12:15	36.68	888.00	4.99	157.70	33.38	0.00	46.69	36.54	41.64	39.41
12SEP90:12:30	36.93	903.00	5.49	181.60	31.94	0.00	46.62	36.54	41.98	39.87
12SEP90:12:45	36.95	904.00	4.94	179.30	30.73	0.00	47.36	37.14	43.03	40.32
12SEP90:13:00	37.74	909.00	2.77	195.60	27.82	0.00	47.77	37.55	43.68	40.99
12SEP90:13:15	38.28	905.00	3.37	192.20	24.47	0.00	48.19	37.81	43.91	41.21
12SEP90:13:30	38.28	897.00	4.16	181.20	21.92	0.30	48.49	38.14	44.35	41.89
12SEP90:13:45	38.59	880.00	3.41	192.40	22.37	0.00	48.62	38.13	44.64	42.16
12SEP90:14:00	38.82	860.00	3.17	210.90	19.62	0.00	48.67	38.22	44.58	42.35
12SEP90:14:15	38.91	834.00	3.41	178.40	19.41	0.00	48.88	38.38	45.08	43.05
12SEP90:14:30	39.50	816.00	3.27	196.70	16.83	0.00	48.11	38.45	44.50	42.72
12SEP90:14:45	39.94	787.00	2.62	202.80	15.29	0.00	48.52	38.42	44.90	43.63
12SEP90:15:00	39.88	750.00	3.36	187.50	15.36	0.00	48.00	38.53	44.10	43.44
12SEP90:15:15	40.38	708.00	3.33	218.90	14.53	0.00	47.06	38.30	42.44	42.88
12SEP90:15:30	40.07	675.70	2.08	246.30	14.87	0.00	47.22	38.72	42.38	43.70
12SEP90:15:45	40.66	632.50	3.36	281.90	10.84	0.00	46.11	38.66	41.04	42.88
12SEP90:16:00	40.34	580.10	2.49	259.20	12.67	0.00	45.94	38.50	41.08	43.64
12SEP90:16:15	40.99	532.50	2.53	261.30	11.31	0.00	44.92	38.59	40.26	42.88
12SEP90:16:30	40.37	481.40	3.17	181.30	11.51	0.00	45.32	38.67	40.53	43.84
12SEP90:16:45	40.50	431.20	2.48	163.80	11.40	0.00	44.36	37.97	39.71	43.52
12SEP90:17:00	40.73	387.70	2.99	180.70	10.72	0.00	43.14	38.01	38.99	42.63
12SEP90:17:15	41.71	335.90	2.87	241.00	7.94	0.00	41.82	38.20	38.54	42.08
12SEP90:17:30	41.37	221.00	2.58	235.50	7.82	0.00	41.11	37.75	38.43	42.22
12SEP90:17:45	41.03	165.60	2.94	279.30	7.87	0.00	40.22	37.73	37.99	41.90
12SEP90:18:00	41.26	162.20	1.34	226.00	7.74	0.00	39.21	37.99	37.41	41.10
12SEP90:18:15	40.69	116.00	2.34	207.30	8.03	0.00	37.99	37.54	37.03	40.96
12SEP90:18:30	39.22	62.93	4.80	176.70	10.45	0.00	36.63	36.21	36.46	40.67
12SEP90:18:45	38.66	19.39	5.70	172.70	11.30	0.00	35.44	35.95	35.68	39.81
12SEP90:19:00	38.18	3.51	6.00	172.60	12.56	0.00	34.82	35.71	35.47	39.35
12SEP90:19:15	37.80	0.79	6.19	172.00	14.27	0.00	34.46	35.49	35.44	39.01
12SEP90:19:30	38.11	1.10	7.06	171.60	20.47	0.00	34.19	35.22	35.36	38.68
12SEP90:19:45	36.50	0.39	7.47	170.90	23.67	0.00	33.98	34.98	35.22	38.33
12SEP90:20:00	36.49	2.23	6.62	173.40	25.03	0.00	33.63	34.66	34.93	37.92

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
12SEP90:20:15	35.68	0.42	6.26	178.30	26.31	0.00	33.12	34.25	34.47	37.46
12SEP90:20:30	35.64	0.86	6.43	183.60	27.59	0.00	32.74	33.84	34.12	37.00
12SEP90:20:45	35.37	0.59	5.40	183.00	29.08	0.00	32.41	33.57	33.81	36.60
12SEP90:21:00	35.05	0.93	4.73	186.60	30.99	0.00	31.85	32.92	33.36	36.13
12SEP90:21:15	34.59	0.34	3.62	186.00	32.95	0.00	31.68	32.80	33.18	35.74
12SEP90:21:30	34.20	0.61	4.62	168.00	34.52	0.00	31.09	32.17	32.71	35.38
12SEP90:21:45	33.63	0.71	5.11	173.10	36.28	0.00	30.68	31.76	32.34	34.98
12SEP90:22:00	33.07	0.25	5.04	174.60	37.67	0.00	30.37	31.50	32.12	34.70
12SEP90:22:15	33.01	0.29	4.79	163.00	38.25	0.00	29.67	30.51	31.48	34.33
12SEP90:22:30	32.75	0.29	3.81	170.10	38.53	0.00	29.51	30.45	31.34	34.00
12SEP90:22:45	32.53	0.29	5.17	175.00	38.47	0.00	29.48	30.56	31.24	33.66
12SEP90:23:00	32.17	0.29	4.17	169.20	38.72	0.00	29.26	30.44	31.05	33.34
12SEP90:23:15	31.93	0.44	3.31	173.30	38.92	0.00	28.64	29.76	30.48	32.95
12SEP90:23:30	31.68	0.29	2.50	173.40	39.25	0.00	27.96	28.84	29.90	32.66
12SEP90:23:45	31.41	0.42	2.17	172.40	39.82	0.00	27.48	28.31	29.45	32.41
13SEP90:00:00	31.15	0.42	1.98	113.90	40.39	0.00	27.31	28.30	29.31	32.17
13SEP90:00:15	31.35	0.20	2.54	130.30	40.07	0.00	27.33	29.01	29.31	31.97
13SEP90:00:30	31.07	0.27	2.34	123.10	40.01	0.00	27.11	28.84	29.13	31.71
13SEP90:00:45	30.88	0.15	2.14	128.80	39.53	0.00	26.60	28.45	28.69	31.39
13SEP90:01:00	30.82	0.17	1.93	119.90	39.09	0.00	26.36	28.03	28.45	31.16
13SEP90:01:15	30.79	0.05	0.73	81.90	39.13	0.00	26.23	27.71	28.22	30.86
13SEP90:01:30	30.29	0.42	2.78	99.30	40.38	0.00	25.95	28.05	27.97	30.62
13SEP90:01:45	30.42	0.20	3.02	109.20	38.96	0.00	25.76	27.82	27.82	30.39
13SEP90:02:00	30.15	0.00	3.13	112.40	39.08	0.00	25.44	27.73	27.56	30.15
13SEP90:02:15	30.18	.	2.56	118.10	38.19	0.00	25.37	27.64	27.46	29.96
13SEP90:02:30	30.42	.	2.69	130.60	37.29	0.00	25.03	27.28	27.14	29.75
13SEP90:02:45	30.26	0.05	2.66	153.70	36.79	0.00	24.84	26.90	26.98	29.56
13SEP90:03:00	29.83	0.00	2.47	153.40	37.42	0.00	24.99	26.80	26.98	29.39
13SEP90:03:15	29.41	0.05	2.04	135.60	38.03	0.00	24.58	26.36	26.63	29.04
13SEP90:03:30	29.25	0.15	1.94	135.60	38.27	0.00	24.12	25.77	26.25	28.78
13SEP90:03:45	29.30	0.42	1.32	176.60	38.14	0.00	23.83	25.36	25.93	28.44
13SEP90:04:00	28.83	0.44	1.93	161.80	38.75	0.00	23.38	24.66	25.54	28.29
13SEP90:04:15	28.51	0.59	2.09	163.00	39.18	0.00	23.17	24.54	25.39	28.20
13SEP90:04:30	28.39	0.66	1.38	150.80	39.42	0.00	23.16	24.47	25.37	28.01
13SEP90:04:45	28.22	0.74	1.23	133.90	39.65	0.00	22.99	24.26	25.13	27.81
13SEP90:05:00	28.28	0.81	1.24	88.20	39.68	0.00	22.86	24.00	24.97	27.61
13SEP90:05:15	28.36	0.88	0.33	107.20	39.36	0.00	22.65	23.81	24.72	27.30
13SEP90:05:30	28.21	0.88	0.57	121.30	39.22	0.00	22.70	23.95	24.66	26.98
13SEP90:05:45	27.79	0.83	1.09	89.20	39.72	0.00	22.48	23.53	24.43	26.95
13SEP90:06:00	27.40	0.93	1.22	93.40	40.32	0.00	22.52	23.91	24.46	27.01
13SEP90:06:15	28.04	1.89	2.97	110.90	40.91	0.00	23.12	24.82	24.92	26.85
13SEP90:06:30	28.00	7.19	2.12	121.90	41.28	0.00	23.11	24.65	24.77	26.57
13SEP90:06:45	28.09	24.15	1.57	133.50	41.15	0.00	23.05	24.44	24.70	26.62
13SEP90:07:00	28.38	58.1	1.58	110.90	40.66	0.00	23.53	24.55	25.00	26.99
13SEP90:07:15	28.73	105.70	1.13	98.00	40.06	0.00	24.59	25.05	25.60	27.35
13SEP90:07:30	28.85	153.20	1.49	102.00	39.83	0.00	25.84	25.82	26.20	27.74
13SEP90:07:45	29.40	203.70	1.04	95.10	39.15	0.00	27.38	26.89	27.18	28.07
13SEP90:08:00	30.35	256.60	0.78	122.20	38.01	0.00	29.09	27.97	27.98	28.61
13SEP90:08:15	31.20	310.00	0.65	133.90	37.10	0.00	30.81	28.82	28.53	29.25
13SEP90:08:30	31.59	363.70	1.08	124.10	36.28	0.00	32.17	29.51	29.18	30.09



DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF MULK TANK (Deg. C)	TRACK OF MULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSNES & TREES (Deg. C)
13SEP90:08:45	31.51	414.90	1.44	118.50	36.20	0.00	33.60	30.23	29.90	30.76
13SEP90:09:00	32.23	464.90	2.17	143.50	35.61	0.00	35.04	30.95	30.70	31.65
13SEP90:09:15	32.72	513.40	2.62	140.30	35.19	0.00	36.39	31.37	31.28	32.19
13SEP90:09:30	33.00	560.40	2.47	146.50	34.53	0.00	37.69	32.11	32.00	32.87
13SEP90:09:45	33.11	604.60	2.44	157.20	34.58	0.00	38.68	32.38	32.58	33.78
13SEP90:10:00	33.35	646.10	2.91	172.90	34.05	0.00	39.89	33.01	33.46	34.23
13SEP90:10:15	34.11	685.50	2.83	168.70	33.20	0.00	40.92	33.42	34.20	34.77
13SEP90:10:30	33.73	722.00	2.41	186.70	33.56	0.00	42.00	33.52	35.12	35.32
13SEP90:10:45	35.63	754.00	3.46	163.20	32.35	0.00	43.14	34.46	36.33	35.99
13SEP90:11:00	35.29	785.00	4.15	161.60	31.84	0.00	43.09	34.20	36.82	36.57
13SEP90:11:15	35.26	810.00	4.06	147.60	31.51	0.00	44.55	34.97	38.18	37.44
13SEP90:11:30	35.07	835.00	4.71	161.40	30.52	0.00	45.19	35.09	39.07	37.89
13SEP90:11:45	35.35	849.00	3.74	173.70	30.69	0.00	45.42	35.53	39.82	37.97
13SEP90:12:00	35.54	865.00	4.68	176.60	31.39	0.00	46.01	35.58	40.57	38.62
13SEP90:12:15	35.54	877.00	3.77	181.90	31.04	0.00	46.03	35.44	41.02	39.30
13SEP90:12:30	35.85	884.00	3.47	188.50	29.32	0.00	46.99	35.92	42.22	39.64
13SEP90:12:45	35.79	892.00	4.04	175.30	27.05	0.00	46.82	35.94	42.31	39.96
13SEP90:13:00	36.63	886.00	2.56	174.20	26.85	0.00	47.77	36.24	43.06	40.65
13SEP90:13:15	36.77	880.00	3.80	181.50	26.61	0.00	48.23	36.69	43.70	41.48
13SEP90:13:30	37.15	866.00	3.22	188.90	27.49	0.00	48.68	36.80	43.78	41.68
13SEP90:13:45	37.39	854.00	3.21	181.30	26.62	0.00	48.03	36.89	43.72	41.65
13SEP90:14:00	38.00	837.00	4.07	188.30	25.39	0.00	48.44	37.70	44.31	41.94
13SEP90:14:15	37.80	814.00	5.39	174.10	24.05	0.00	48.35	37.48	44.12	42.38
13SEP90:14:30	38.51	791.00	4.59	176.80	22.42	0.00	46.78	36.88	43.19	41.56
13SEP90:14:45	38.15	763.00	5.09	176.00	20.68	0.00	47.09	37.70	43.89	41.94
13SEP90:15:00	38.44	731.00	3.66	185.90	19.22	0.00	46.49	37.61	43.36	42.42
13SEP90:15:15	38.67	695.50	3.51	201.30	17.92	0.00	46.35	37.49	42.18	42.31
13SEP90:15:30	38.67	654.90	4.69	190.00	17.46	0.00	45.76	37.33	41.12	42.31
13SEP90:15:45	38.62	614.70	3.63	215.70	16.69	0.00	45.34	37.39	40.55	42.11
13SEP90:16:00	38.91	567.30	4.53	206.20	16.58	0.00	44.41	37.28	40.05	42.10
13SEP90:16:15	38.67	521.00	4.03	198.00	16.46	0.00	44.24	37.14	39.76	42.29
13SEP90:16:30	38.49	470.40	3.86	193.10	16.70	0.00	42.83	36.79	38.36	41.30
13SEP90:16:45	38.63	416.30	3.79	201.60	16.48	0.00	42.08	36.83	38.49	41.49
13SEP90:17:00	38.50	364.10	3.66	205.70	16.21	0.00	41.62	36.67	38.53	41.49
13SEP90:17:15	38.30	310.70	4.54	186.10	17.23	0.00	40.37	36.06	37.55	40.82
13SEP90:17:30	37.91	226.90	4.08	194.20	17.52	0.00	39.72	35.98	37.64	40.93
13SEP90:17:45	37.85	151.40	4.53	184.70	18.07	0.00	38.61	35.62	37.11	40.41
13SEP90:18:00	37.68	145.60	4.58	188.20	18.25	0.00	37.67	35.33	36.61	40.16
13SEP90:18:15	37.31	105.00	4.48	185.30	18.84	0.00	36.49	34.88	35.88	39.45
13SEP90:18:30	37.07	50.58	4.28	183.00	19.16	0.00	35.34	34.39	35.41	38.95
13SEP90:18:45	36.85	16.59	4.17	187.30	18.95	0.00	34.13	33.99	34.67	38.33
13SEP90:19:00	36.55	3.70	3.91	175.20	19.57	0.00	33.38	33.67	34.26	37.90
13SEP90:19:15	36.26	3.19	3.91	166.80	18.97	0.00	32.58	33.22	33.83	37.55
13SEP90:19:30	35.75	1.15	4.43	177.10	21.03	0.00	32.22	33.13	33.65	37.24
13SEP90:19:45	35.69	1.20	5.26	183.50	25.53	0.00	32.31	33.31	33.75	36.86
13SEP90:20:00	35.15	1.91	4.94	184.20	26.78	0.00	31.84	32.87	33.35	36.40
13SEP90:20:15	34.69	0.96	4.98	178.90	26.86	0.00	31.45	32.58	33.02	35.98
13SEP90:20:30	34.37	0.96	4.33	182.40	27.14	0.00	31.14	32.28	32.76	35.61
13SEP90:20:45	33.93	1.18	4.32	178.10	28.33	0.00	30.81	32.02	32.46	35.18
13SEP90:21:00	33.48	0.98	4.70	187.20	30.61	0.00	30.45	31.59	32.13	34.79

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
13SEP90:21:15	33.17	1.10	4.71	187.50	31.71	0.00	30.14	31.33	31.84	34.38
13SEP90:21:30	32.58	1.05	5.23	188.10	33.02	0.00	29.82	30.95	31.56	34.05
13SEP90:21:45	32.36	1.13	5.49	184.00	33.95	0.00	29.70	30.83	31.41	33.70
13SEP90:22:00	31.72	0.98	5.34	183.60	34.43	0.00	29.26	30.38	31.01	33.22
13SEP90:22:15	31.77	1.03	4.62	178.20	34.66	0.00	28.87	30.00	30.62	32.88
13SEP90:22:30	31.47	0.86	3.74	180.50	35.32	0.00	28.41	29.54	30.20	32.48
13SEP90:22:45	31.09	0.88	1.60	158.20	36.07	0.00	27.80	28.96	29.66	32.14
13SEP90:23:00	30.75	1.20	1.55	119.30	36.77	0.00	27.38	28.88	29.30	31.85
13SEP90:23:15	30.50	1.25	2.58	145.90	37.50	0.00	27.70	29.12	29.60	31.72
13SEP90:23:30	30.22	1.05	3.91	135.70	39.82	0.00	27.75	29.16	29.57	31.54
13SEP90:23:45	30.19	0.96	4.76	143.20	41.02	0.00	27.69	29.01	29.43	31.32
14SEP90:00:00	30.36	0.86	5.16	148.00	41.92	0.00	27.39	28.63	29.13	30.98
14SEP90:00:15	29.81	0.96	3.74	155.40	43.23	0.00	26.93	28.17	28.72	30.73
14SEP90:00:30	29.57	1.23	2.77	179.70	44.39	0.00	26.38	27.16	28.22	30.38
14SEP90:00:45	29.36	1.18	3.33	186.00	45.21	0.00	26.37	27.20	28.15	30.10
14SEP90:01:00	29.17	1.03	3.05	174.90	49.88	0.00	26.20	27.19	27.95	29.91
14SEP90:01:15	28.91	1.03	2.13	121.30	52.30	0.00	25.71	26.76	27.50	29.59
14SEP90:01:30	28.91	0.91	2.03	133.20	53.05	0.00	25.24	26.15	27.09	29.36
14SEP90:01:45	28.90	0.71	1.36	142.70	52.95	0.00	25.02	25.84	26.89	29.15
14SEP90:02:00	28.86	0.75	0.44	149.90	51.89	0.00	24.76	25.61	26.65	28.98
14SEP90:02:15	28.94	0.56	0.38	167.90	51.06	0.00	24.42	25.31	26.35	28.73
14SEP90:02:30	28.84	0.59	0.43	170.00	51.30	0.00	24.18	25.09	26.13	28.51
14SEP90:02:45	28.73	0.44	0.55	124.90	51.86	0.00	24.14	25.00	26.04	28.37
14SEP90:03:00	28.77	0.42	0.41	150.20	51.62	0.00	23.94	24.76	25.84	28.16
14SEP90:03:15	28.53	0.54	0.43	112.70	53.12	0.00	23.91	24.80	25.70	27.94
14SEP90:03:30	28.30	0.39	0.69	104.30	53.75	0.00	23.98	24.94	25.71	27.92
14SEP90:03:45	28.16	0.39	1.17	90.90	53.78	0.00	24.51	25.32	26.05	28.02
14SEP90:04:00	28.64	0.47	2.19	103.30	50.77	0.00	24.91	25.46	26.25	28.05
14SEP90:04:15	28.49	0.44	1.66	106.20	50.77	0.00	24.68	25.49	25.97	27.59
14SEP90:04:30	28.45	0.29	2.10	96.70	51.12	0.00	24.30	25.40	25.70	27.22
14SEP90:04:45	28.38	0.29	2.90	100.40	51.44	0.00	24.00	24.91	25.42	27.27
14SEP90:05:00	28.27	0.29	2.04	112.80	51.33	0.00	23.82	24.96	25.31	27.08
14SEP90:05:15	28.42	0.57	2.30	121.40	51.02	0.00	23.74	25.14	25.24	27.02
14SEP90:05:30	28.43	0.29	2.41	136.20	50.79	0.00	24.85	27.01	26.07	27.33
14SEP90:05:45	28.52	0.34	2.71	124.40	50.62	0.00	24.81	26.91	26.01	27.01
14SEP90:06:00	28.64	0.42	2.09	132.00	49.94	0.00	24.35	26.06	25.62	26.92
14SEP90:06:15	28.48	0.91	1.87	151.70	50.13	0.00	24.38	25.45	25.55	27.05
14SEP90:06:30	28.48	5.07	2.42	167.50	50.44	0.00	25.29	26.51	26.20	27.28
14SEP90:06:45	28.25	24.49	2.13	170.20	51.31	0.00	25.33	26.09	26.25	27.34
14SEP90:07:00	28.40	54.60	2.39	139.60	51.85	0.00	26.36	26.88	26.86	27.74
14SEP90:07:15	28.64	73.30	3.17	144.80	53.98	0.00	27.13	27.51	27.35	27.88
14SEP90:07:30	28.85	120.20	3.47	136.60	56.91	0.00	27.87	27.80	27.82	28.28
14SEP90:07:45	29.64	271.90	3.63	146.50	55.94	0.00	30.24	28.88	29.34	29.44
14SEP90:08:00	29.93	355.70	3.64	147.40	55.45	0.00	31.84	29.55	30.09	30.11
14SEP90:08:15	30.13	416.80	2.41	169.20	54.86	0.00	33.38	29.98	30.50	30.88
14SEP90:08:30	30.48	433.80	2.46	191.00	53.41	0.00	34.09	30.01	30.64	31.24
14SEP90:08:45	30.49	420.30	2.36	191.70	53.28	0.00	33.72	29.61	29.91	31.03
14SEP90:09:00	30.60	452.70	1.83	194.30	52.74	0.00	34.60	29.78	30.53	31.67
14SEP90:09:15	31.04	501.10	0.70	179.40	51.66	0.00	36.91	30.83	31.86	32.59
14SEP90:09:30							37.92	31.13	32.14	33.17

DAY AND TIME OF COLLECTION	AIR TEMPERATURE (Deg. C)	SOLAR RADIATION (W/M**2)	WIND MAGNITUDE (M/S)	WIND DIRECTION (DEGREES)	RELATIVE HUMIDITY (PERCENT)	PRECIPITATION (INCHES)	TOP OF HULK TANK (Deg. C)	TRACK OF HULK TANK (Deg. C)	BACKGROUND ROCK & SAND (Deg. C)	BACKGROUND BUSHES & TREES (Deg. C)
14SEP90:09:45	.	.	.	.	.	.	38.50	31.13	32.62	33.95
14SEP90:10:00	.	.	.	.	.	.	38.86	31.38	32.92	34.01
14SEP90:10:15	.	.	.	.	.	.	40.07	32.24	33.98	34.57
14SEP90:10:30	.	.	.	.	.	.	40.81	32.69	34.68	35.08
14SEP90:10:45	.	.	.	.	.	.	41.73	33.18	35.69	35.75
14SEP90:11:00	.	.	.	.	.	.	43.19	33.34	36.86	36.58
14SEP90:11:15	.	.	.	.	.	.	43.32	33.28	37.00	36.41
14SEP90:11:30	.	.	.	.	.	.	.	.	36.00	37.47

APPENDIX B: THERMAL SCENE METRICS

TIME PURPOSE	CONFID	AZIMUTH	ELEV	TMP_MEAN	TMP_MIN	TMP_05	TMP_MED	TMP_95	TMP_MAX	TMP_RNG00	TMP_STDV	T_SKEW (DIMEN- SLOW- LESS		T_ENTRO (DIMEN- SLOW- LESS		T_REYNO (DIMEN- SLOW- LESS		T_CNT95 (Deg. C) UNIT)	
06SEP90:05:59 TRAINING	1	162.000	91.333	26.45	25.22	25.88	26.50	27.02	28.40	1.14	0.38	0.03	2.06	0.29	0.23	0.09	0.26		
06SEP90:07:01 TRAINING	1	164.500	91.333	26.99	25.77	26.31	27.07	27.67	28.74	1.36	0.47	0.24	2.13	0.32	0.27	0.12	0.23		
06SEP90:07:03 TRAINING	1	167.000	91.333	27.26	26.20	26.67	27.35	27.75	28.18	1.08	0.35	-0.55	1.90	0.29	0.16	0.12	0.32		
06SEP90:07:04 TRAINING	1	169.500	91.333	27.54	26.62	27.05	27.65	28.02	29.74	0.97	0.36	-0.08	1.86	0.36	0.01	0.18	0.36		
06SEP90:07:09 TRAINING	1	172.000	91.333	28.08	27.05	27.49	28.24	28.67	29.84	1.18	0.42	-0.32	2.06	0.36	0.10	0.18	0.36		
06SEP90:07:10 TRAINING	1	174.500	91.333	28.40	27.11	27.65	28.45	29.36	30.58	1.72	0.54	0.20	2.29	0.36	0.31	0.18	0.36		
06SEP90:07:11 TRAINING	1	177.000	91.333	28.45	27.32	27.70	28.56	29.26	29.68	1.55	0.48	-0.19	2.23	0.42	0.13	0.18	0.30		
06SEP90:07:11 TRAINING	1	179.500	91.333	28.62	27.16	27.81	28.67	29.36	29.84	1.55	0.54	-0.26	2.28	0.36	0.28	0.18	0.30		
06SEP90:07:12 TRAINING	1	182.000	91.333	28.72	27.70	28.19	28.83	29.26	29.42	1.07	0.36	-0.52	1.85	0.24	0.23	0.12	0.24		
06SEP90:07:13 TRAINING	1	184.500	91.333	28.88	27.81	28.35	28.94	29.42	29.58	1.07	0.36	-0.41	1.88	0.24	0.38	0.12	0.30		
06SEP90:10:50 DEMONSTRATION		185.000	91.250	35.67	33.52	34.24	35.06	39.89	42.34	5.65	1.92	1.68	3.08	1.58	0.22	0.34	1.92		
06SEP90:10:52 DEMONSTRATION		187.500	91.250	36.08	33.93	34.34	35.47	40.29	42.05	5.94	2.15	1.21	3.30	1.70	0.19	0.34	1.81		
06SEP90:10:54 DEMONSTRATION		190.000	91.250	36.18	33.93	34.34	35.67	39.89	42.05	5.55	2.03	1.01	3.32	1.47	0.27	0.34	1.81		
06SEP90:10:56 DEMONSTRATION		192.500	91.250	35.88	34.04	34.34	35.57	39.20	41.66	4.85	1.70	1.30	3.17	1.25	0.21	0.23	1.47		
06SEP90:10:58 DEMONSTRATION		195.000	91.250	35.86	33.83	34.34	35.78	38.90	41.37	4.55	1.58	1.01	3.21	1.36	0.13	0.46	1.47		
06SEP90:11:00 DEMONSTRATION		197.500	91.250	36.18	33.73	34.24	35.98	39.20	42.93	4.95	1.70	1.17	3.34	1.36	0.23	0.46	1.47		
06SEP90:11:02 DEMONSTRATION		200.000	91.250	36.49	34.14	34.55	36.28	39.39	43.60	4.84	1.70	1.14	3.33	1.47	0.14	0.46	1.47		
06SEP90:11:06 DEMONSTRATION		202.500	91.250	35.98	34.04	34.55	35.78	38.50	39.99	3.95	1.25	1.02	3.06	1.36	-0.09	0.34	1.13		
06SEP90:11:09 DEMONSTRATION		205.000	91.250	35.47	33.93	34.55	35.37	37.60	39.39	3.05	1.02	1.28	2.81	1.13	-0.03	0.34	1.13		
06SEP90:11:11 DEMONSTRATION		207.500	91.250	35.37	33.83	34.34	34.96	37.90	43.51	3.55	1.58	3.02	2.76	1.02	0.32	0.23	0.68		
07SEP90:08:18 TRAINING	2	162.000	91.333	33.12	31.09	31.77	33.28	34.16	35.74	2.39	0.73	-0.39	2.65	0.68	0.07	0.23	0.51		
07SEP90:08:19 TRAINING	2	164.500	91.333	33.33	31.19	32.19	33.38	34.31	35.44	2.12	0.68	-0.32	2.56	0.62	0.08	0.23	0.56		
07SEP90:08:20 TRAINING	2	167.000	91.333	33.54	29.98	32.34	33.64	34.57	37.41	2.22	0.73	-0.58	2.60	0.68	0.04	0.28	0.79		
07SEP90:08:21 TRAINING	2	169.500	91.333	33.54	31.25	32.50	33.64	34.52	37.01	2.02	0.68	-0.36	2.56	0.62	0.10	0.23	0.56		
07SEP90:08:22 TRAINING	2	172.000	91.333	33.59	31.61	32.66	33.64	34.62	35.85	1.96	0.62	0.15	2.52	0.62	-0.01	0.23	0.56		
07SEP90:08:23 TRAINING	2	174.500	91.333	33.64	31.66	32.76	33.64	34.72	37.26	1.96	0.68	0.73	2.56	0.56	0.14	0.28	0.56		
07SEP90:08:24 TRAINING	2	177.000	91.333	33.74	31.87	33.02	33.74	34.62	36.86	1.60	0.56	0.65	2.37	0.51	0.13	0.17	0.45		
07SEP90:08:25 TRAINING	2	179.500	91.339	33.74	30.30	33.02	33.74	34.57	36.81	1.55	0.62	0.45	2.35	0.51	0.11	0.17	0.51		
07SEP90:08:26 TRAINING	2	182.000	91.333	33.49	30.24	32.71	33.54	34.41	35.69	1.71	0.62	-0.46	2.43	0.51	0.17	0.17	0.56		
07SEP90:08:27 TRAINING	2	184.500	91.333	33.43	31.61	32.66	33.38	34.62	36.96	1.96	0.73	0.85	2.54	0.40	0.47	0.17	0.51		
07SEP90:10:35 TRAINING	2	162.000	91.333	40.63	35.83	38.40	40.33	43.94	45.76	5.54	1.88	0.55	3.54	1.40	0.25	0.38	0.97		
07SEP90:10:36 TRAINING	2	164.500	91.333	40.78	36.44	38.40	40.43	44.18	46.05	5.78	2.04	0.51	3.57	1.72	0.16	0.43	1.19		
07SEP90:10:37 TRAINING	2	167.000	91.333	40.83	37.60	38.60	40.53	43.99	45.67	5.39	1.99	0.44	3.48	1.45	0.27	0.49	1.19		
07SEP90:10:38 TRAINING	2	169.500	91.333	40.68	36.89	38.40	40.43	44.13	46.14	5.74	2.04	0.55	3.56	1.51	0.26	0.43	1.35		
07SEP90:10:39 TRAINING	2	172.000	91.333	40.93	37.50	38.65	40.68	44.18	46.24	5.53	1.94	0.55	3.52	1.78	0.10	0.43	1.29		
07SEP90:10:40 TRAINING	2	174.500	91.333	40.68	37.40	38.60	40.33	44.13	46.28	5.54	1.88	1.03	3.47	1.62	0.14	0.38	1.35		
07SEP90:10:41 TRAINING	2	177.000	91.333	40.83	37.65	38.65	40.38	45.33	46.28	6.68	2.10	1.15	3.50	2.10	0.01	0.54	1.78		

**B4**

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_MAX (Deg. C)	TMP_RNG90 (Deg. C)	I_SKEW (DIMEN- SION- LESS UNIT)		I_ENTRO (DIMEN- SION- LESS UNIT)		I_SKUTTR (Deg. C) UNIT)		I_RETMO (DIMEN- SION- LESS UNIT)		I_CN195 (Deg. C) (Deg. C)	
08SEP90:08:15 TESTING	6	195.000	91.250	34.57	31.66	33.74	34.77	35.13	36.66	1.39	0.56	-2.00	2.11	0.51	0.06	0.17	0.51	0.17	0.51	0.51
08SEP90:08:16 TESTING	6	197.500	91.250	34.57	31.82	33.85	34.72	35.18	36.66	1.34	0.51	-1.16	2.18	0.40	0.26	0.17	0.45	0.17	0.45	0.45
08SEP90:08:17 TESTING	6	200.000	91.250	34.62	32.50	33.95	34.77	35.13	36.46	1.18	0.45	-0.97	2.02	0.34	0.27	0.17	0.51	0.17	0.51	0.51
08SEP90:08:18 TESTING	6	202.500	91.250	34.62	32.92	34.11	34.67	35.08	36.30	0.97	0.34	-0.78	1.86	0.28	0.17	0.17	0.34	0.17	0.34	0.34
08SEP90:08:19 TESTING	6	205.000	91.250	34.57	32.86	34.16	34.62	34.98	36.00	0.82	0.28	-0.79	1.74	0.23	0.20	0.11	0.28	0.11	0.28	0.28
08SEP90:09:53 TESTING	9	190.000	91.000	48.38	47.13	47.51	48.50	48.87	49.13	1.36	0.45	-0.87	2.05	0.35	0.21	0.13	0.38	0.13	0.38	0.38
08SEP90:09:54 TESTING	9	192.500	91.000	48.64	47.42	47.96	48.71	49.08	49.24	1.12	0.38	-0.94	1.90	0.30	0.20	0.13	0.33	0.13	0.33	0.33
08SEP90:09:55 TESTING	9	195.000	91.000	48.97	47.89	48.36	49.03	49.43	49.59	1.07	0.35	-0.61	1.93	0.30	0.12	0.13	0.28	0.13	0.28	0.28
08SEP90:09:56 TESTING	9	197.500	91.000	49.20	47.09	48.52	49.24	49.73	49.92	1.21	0.42	-1.35	2.03	0.30	0.33	0.15	0.33	0.15	0.33	0.33
08SEP90:08:57 TESTING	9	200.000	91.000	49.43	47.58	48.85	49.52	49.90	50.06	1.05	0.38	-1.36	1.89	0.28	0.25	0.13	0.30	0.13	0.30	0.30
08SEP90:08:58 TESTING	9	202.500	91.000	50.06	49.13	49.53	50.13	50.43	50.73	0.90	0.30	-0.78	1.72	0.25	0.16	0.12	0.30	0.12	0.30	0.30
08SEP90:08:59 TESTING	9	205.000	91.000	50.43	48.36	50.02	50.50	50.73	50.99	0.72	0.27	-2.00	1.57	0.20	0.27	0.12	0.35	0.12	0.35	0.35
10SEP90:03:22 TRAINING	1	162.000	91.333	31.10	28.39	29.51	31.10	32.93	35.20	3.42	1.08	0.45	3.02	0.80	0.30	0.23	0.69	0.23	0.69	0.69
10SEP90:03:24 TRAINING	1	164.500	91.333	31.10	28.50	29.41	31.10	32.88	35.25	3.47	1.20	0.72	3.07	0.86	0.30	0.23	0.57	0.23	0.57	0.57
10SEP90:03:25 TRAINING	1	167.000	91.333	30.84	28.50	29.25	30.89	32.36	33.19	3.11	0.97	-0.12	2.91	0.74	0.21	0.23	0.69	0.23	0.69	0.69
10SEP90:03:26 TRAINING	1	169.500	91.333	30.84	28.50	29.25	30.89	32.46	33.91	3.22	1.03	-0.00	2.97	0.91	0.12	0.29	0.74	0.29	0.74	0.74
10SEP90:03:27 TRAINING	1	172.000	91.333	30.79	28.12	29.14	30.84	32.52	34.27	3.37	1.08	0.10	3.07	0.86	0.21	0.29	0.80	0.29	0.80	0.80
10SEP90:03:29 TRAINING	1	174.500	91.333	31.37	28.23	29.25	31.05	34.84	35.86	5.59	1.76	0.72	3.41	0.91	0.48	0.23	0.69	0.23	0.69	0.69
10SEP90:03:30 TRAINING	1	177.000	91.333	31.42	28.07	29.09	31.31	34.38	35.35	5.29	1.71	0.37	3.43	1.03	0.39	0.29	0.63	0.29	0.63	0.63
10SEP90:03:31 TRAINING	1	179.500	91.333	31.89	28.18	29.57	31.78	34.63	35.40	5.07	1.59	0.24	3.41	0.91	0.42	0.29	0.69	0.29	0.69	0.69
10SEP90:03:32 TRAINING	1	182.000	91.333	32.05	29.03	30.10	31.99	34.53	34.94	4.43	1.42	0.27	3.25	0.80	0.45	0.23	0.57	0.23	0.57	0.57
10SEP90:03:33 TRAINING	1	184.500	91.333	32.05	29.09	30.10	32.10	34.33	34.69	4.23	1.37	0.11	3.21	0.80	0.44	0.23	0.57	0.23	0.57	0.57
10SEP90:04:27 TRAINING	2	162.000	91.333	30.27	27.44	28.51	30.27	32.22	34.34	3.70	1.16	0.39	3.10	0.81	0.30	0.23	0.64	0.23	0.64	0.64
10SEP90:04:28 TRAINING	2	164.500	91.333	30.22	27.60	28.41	30.22	32.06	34.44	3.65	1.27	0.66	3.12	0.87	0.30	0.23	0.58	0.23	0.58	0.58
10SEP90:04:29 TRAINING	2	167.000	91.333	30.06	27.60	28.46	30.17	31.69	34.90	3.23	1.04	-0.05	2.95	0.81	0.22	0.23	0.69	0.23	0.69	0.69
10SEP90:04:30 TRAINING	2	169.500	91.333	30.17	27.65	28.46	30.22	31.80	34.19	3.34	1.04	-0.02	3.01	0.93	0.15	0.29	0.75	0.29	0.75	0.75
10SEP90:04:31 TRAINING	2	172.000	91.333	30.11	27.38	28.41	30.22	31.85	33.26	3.44	1.16	0.00	3.10	0.87	0.23	0.29	0.81	0.29	0.81	0.81
10SEP90:04:32 TRAINING	2	174.500	91.333	30.70	27.38	28.41	30.43	33.98	34.96	5.57	1.79	0.56	3.44	0.98	0.47	0.23	0.75	0.23	0.75	0.75
10SEP90:04:33 TRAINING	2	177.000	91.333	30.70	27.17	28.19	30.59	33.67	34.55	5.48	1.84	0.22	3.49	1.04	0.44	0.29	0.69	0.29	0.69	0.69
10SEP90:04:34 TRAINING	2	179.500	91.333	31.06	27.22	28.51	31.01	33.88	34.44	5.36	1.73	0.09	3.47	0.93	0.46	0.29	0.75	0.29	0.75	0.75
10SEP90:04:35 TRAINING	2	182.000	91.333	31.22	27.98	29.05	31.27	33.83	34.19	4.78	1.56	0.14	3.32	0.81	0.49	0.23	0.58	0.23	0.58	0.58
10SEP90:04:36 TRAINING	2	184.500	91.333	31.12	28.09	28.78	31.01	33.72	34.03	4.94	1.73	0.17	3.35	0.81	0.55	0.23	0.58	0.23	0.58	0.58
10SEP90:05:46 TRAINING	3	162.000	90.750	30.10	27.16	28.18	30.16	32.15	34.43	3.97	1.26	0.20	3.16	0.69	0.46	0.23	0.58	0.23	0.58	0.58
10SEP90:05:48 TRAINING	3	164.500	90.750	30.21	27.21	28.07	30.21	32.41	34.48	4.34	1.46	0.47	3.20	0.85	0.47	0.24	0.73	0.24	0.73	0.73
10SEP90:05:49 TRAINING	3	167.000	90.750	29.89	27.21	28.07	30.10	31.68	32.41	3.61	1.22	-0.20	3.02	0.73	0.42	0.24	0.73	0.24	0.73	0.73
10SEP90:05:50 TRAINING	3	169.500	90.750	30.10	27.64	28.29	30.31	32.00	33.35	3.71	1.22	-0.13	3.09	0.85	0.29	0.37	0.85	0.29	0.37	0.85
10SEP90:05:52 TRAINING	3	172.000	90.750	30.10	27.32	28.29	30.31	32.10	33.56	3.81	1.34	0.03	3.17	0.85	0.34	0.24	0.85	0.24	0.85	0.85

TIME PURPOSE	CONFIG	AZIMUTH	ELEV	TMF_MEAN	TMF_MIN	TMF_05	TMF_MED	TMF_95	TMF_MAX	T_RNG00	TMF_STDV	T_SKEW	T_ENTRO	T_REYNO	T_CNT75	T_CNT95
		(Degrees)	(Degrees)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(DIMEN- SION- LESS)	(DIMEN- SION- LESS)	(DIMEN- SION- LESS)	(Deg. C)	(Deg. C)
10SEP90:05:53 TRAINING	3	174.500	90.750	30.95	27.21	28.29	30.74	34.48	35.51	6.20	2.06	0.45	3.55	0.61	0.24	0.73
10SEP90:05:54 TRAINING	3	177.000	90.750	30.53	26.99	28.07	30.42	33.66	34.69	5.59	1.94	0.33	3.49	0.85	0.37	0.85
10SEP90:05:58 TRAINING	3	179.500	90.750	30.14	26.49	27.79	30.04	32.97	33.90	5.18	1.79	0.24	3.43	0.72	0.36	0.84
10SEP90:05:59 TRAINING	3	182.000	90.750	30.25	27.14	28.33	30.25	32.87	33.39	4.54	1.44	0.28	3.26	0.60	0.36	0.60
10SEP90:06:00 TRAINING	3	184.500	90.750	30.35	27.47	28.54	30.35	32.87	32.97	4.33	1.44	0.21	3.20	0.60	0.24	0.60
10SEP90:06:07 TRAINING	1	162.000	91.333	33.65	31.83	32.56	33.70	34.84	37.42	2.27	0.79	0.50	2.67	0.79	-0.01	0.23
10SEP90:06:08 TRAINING	1	164.500	91.333	33.86	31.57	32.88	33.96	34.94	38.08	2.06	0.68	0.18	2.61	0.62	0.08	0.23
10SEP90:06:09 TRAINING	1	167.000	91.333	33.86	30.68	32.56	33.96	34.99	36.26	2.43	0.79	-0.53	2.70	0.74	0.08	0.28
10SEP90:06:11 TRAINING	1	169.500	91.333	33.65	31.15	32.46	33.76	34.73	40.02	2.27	0.74	0.19	2.66	0.57	0.23	0.51
10SEP90:06:13 TRAINING	1	172.000	91.333	33.24	31.20	31.94	33.34	34.68	36.16	2.74	0.91	0.07	2.88	0.51	0.44	0.23
10SEP90:06:14 TRAINING	1	174.500	91.333	33.29	31.47	32.25	33.13	34.89	37.47	2.64	0.91	0.95	2.79	0.57	0.38	0.23
10SEP90:06:15 TRAINING	1	177.000	91.333	33.24	31.94	32.67	33.19	34.22	36.72	1.55	0.51	1.10	2.28	0.40	0.23	0.17
10SEP90:06:16 TRAINING	1	179.500	91.333	33.24	30.78	32.62	33.19	34.22	37.27	1.60	0.62	1.79	2.36	0.51	0.22	0.17
10SEP90:06:18 TRAINING	1	182.000	91.333	33.55	30.78	32.68	33.55	34.27	35.70	1.39	0.51	-0.45	2.24	0.40	0.17	0.45
10SEP90:06:19 TRAINING	1	184.500	91.333	33.96	31.94	33.24	33.96	34.73	36.21	1.49	0.51	-0.01	2.20	0.28	0.44	0.17
12SEP90:04:16 TESTING	1	185.000	91.250	31.74	27.27	28.72	31.53	34.70	35.36	5.97	2.12	0.02	3.58	1.03	0.51	0.34
12SEP90:04:19 TESTING	1	187.500	91.250	30.74	26.35	27.76	30.37	34.18	34.59	6.42	2.17	0.25	3.57	1.09	0.49	0.40
12SEP90:04:21 TESTING	1	190.000	91.250	30.31	26.23	27.64	30.00	33.76	34.28	6.12	2.06	0.42	3.45	1.10	0.46	0.49
12SEP90:04:22 TESTING	1	192.500	91.250	30.31	26.45	28.18	30.10	33.56	34.28	5.37	1.82	0.62	3.35	1.10	0.38	0.49
12SEP90:04:23 TESTING	1	195.000	91.250	30.31	26.56	28.29	30.10	33.45	34.07	5.16	1.70	0.66	3.32	1.22	0.27	0.49
12SEP90:04:25 TESTING	1	197.500	91.250	30.42	27.04	28.71	30.31	33.29	34.17	4.58	1.31	0.95	3.11	1.14	0.15	0.34
12SEP90:04:26 TESTING	1	200.000	91.250	30.31	27.15	28.61	30.31	32.83	34.07	4.22	1.25	0.77	3.11	1.08	0.15	0.34
11SEP90:04:42 TESTING	2	185.000	91.250	31.37	26.72	28.29	31.37	34.33	34.94	6.04	2.10	-0.06	3.61	1.03	0.51	0.34
11SEP90:04:43 TESTING	2	187.500	91.250	30.84	26.50	27.69	30.42	34.17	34.63	6.48	2.16	0.17	3.60	1.08	0.51	0.34
11SEP90:04:43 TESTING	2	190.000	91.250	30.68	26.50	28.02	30.26	33.97	34.53	5.95	1.93	0.38	3.49	1.03	0.47	0.34
11SEP90:04:45 TESTING	2	192.500	91.250	30.63	26.99	28.39	30.31	33.76	34.48	5.37	1.81	0.56	3.35	1.09	0.40	0.48
11SEP90:04:46 TESTING	2	195.000	91.250	30.31	26.66	28.29	30.10	33.45	34.17	5.16	1.81	0.62	3.35	1.21	0.30	0.48
11SEP90:04:46 TESTING	2	197.500	91.250	29.99	26.66	28.39	29.99	33.03	33.76	4.64	1.45	0.98	3.07	1.21	0.19	0.36
11SEP90:04:47 TESTING	2	200.000	91.250	30.10	26.99	28.50	29.99	32.93	33.97	4.43	1.45	0.92	3.15	1.21	0.19	0.36
11SEP90:04:48 TESTING	2	202.500	91.250	30.52	27.85	29.25	30.52	33.24	33.86	3.99	1.21	1.09	2.90	1.21	0.03	0.36
11SEP90:04:48 TESTING	2	205.000	91.250	30.73	28.07	29.57	30.63	33.14	33.76	3.57	1.21	0.93	2.93	0.97	0.13	0.24
11SEP90:04:50 TESTING	2	207.500	91.250	31.37	28.39	29.89	31.37	33.35	34.38	3.46	1.09	0.49	2.97	0.85	0.21	0.24
11SEP90:04:51 TESTING	2	210.000	91.250	31.05	28.39	29.25	31.15	33.66	33.97	4.41	1.45	0.26	3.19	1.45	0.03	0.24
11SEP90:08:19 TESTING	12	185.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:08:24 TESTING	12	187.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:08:25 TESTING	12	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:08:27 TESTING	12	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.



TIME PURPOSE	CONFIG	AZIMUTH (Degrees)	ELEV (Degrees)	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_MAX (Deg. C)	TMP_RNG90 (Deg. C)	TMP_STDV (Deg. C)	I_SKEW (DIMEN- SION- LESS		I_ENTRO (DIMEN- SION- LESS		I_REYNO (DIMEN- SION- LESS		I_CN175 (Deg. C)	I_CN195 (Deg. C)	
												UNIT	UNIT	UNIT	UNIT	UNIT	UNIT			
11SEP90:08:29 TESTING	12	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:08:31 TESTING	12	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:08:33 TESTING	12	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:08:35 TESTING	12	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:08:37 TESTING	12	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:08:38 TESTING	12	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:09:10 TESTING	13	185.000	91.250	38.59	35.46	37.09	38.49	40.87	43.40	3.78	1.38	0.73	3.10	1.06	0.23	0.35	1.06	0.23	0.35	1.06
11SEP90:09:11 TESTING	13	187.500	91.250	38.99	35.97	37.59	38.89	41.07	42.14	3.48	1.18	0.47	3.05	1.06	0.12	0.47	1.30	0.12	0.47	1.30
11SEP90:09:14 TESTING	13	190.000	91.250	39.29	35.87	37.99	39.19	41.36	42.04	3.37	1.18	0.36	3.00	0.94	0.26	0.47	1.18	0.26	0.47	1.18
11SEP90:09:16 TESTING	13	192.500	91.250	39.36	36.35	38.27	39.36	41.14	42.70	2.87	1.07	0.48	2.87	0.83	0.14	0.36	1.07	0.14	0.36	1.07
11SEP90:09:19 TESTING	13	195.000	91.250	39.46	36.56	38.07	39.46	41.14	42.60	3.07	1.07	0.09	2.96	1.07	0.07	0.48	1.07	0.07	0.48	1.07
11SEP90:09:20 TESTING	13	197.500	91.250	39.94	37.04	38.65	40.04	41.61	43.26	2.96	1.03	0.04	2.96	1.03	0.04	0.46	1.03	0.04	0.46	1.03
11SEP90:09:24 TESTING	13	200.000	91.250	40.58	37.95	39.19	40.63	42.15	44.28	2.95	1.03	0.30	2.97	0.93	0.08	0.38	0.98	0.08	0.38	0.98
11SEP90:09:25 TESTING	13	202.500	91.250	40.43	37.80	39.29	40.38	42.05	42.88	2.76	0.93	0.38	2.87	0.93	0.03	0.27	0.71	0.03	0.27	0.71
11SEP90:09:27 TESTING	13	205.000	91.250	40.33	37.85	39.44	40.33	41.71	42.78	2.27	0.80	0.46	2.69	0.80	0.03	0.34	0.80	0.03	0.34	0.80
11SEP90:09:28 TESTING	13	207.500	91.250	40.43	38.75	39.54	40.33	42.00	45.28	2.46	1.14	2.19	2.74	0.80	0.29	0.23	0.57	0.29	0.23	0.57
11SEP90:09:45 TESTING	14	185.000	91.250	41.47	38.20	40.09	41.17	44.47	46.95	4.38	1.58	1.14	3.17	1.25	0.18	0.46	1.47	0.18	0.46	1.47
11SEP90:09:46 TESTING	14	187.500	91.250	41.76	39.00	40.19	41.47	44.76	45.90	4.57	1.58	0.98	3.23	1.36	0.11	0.46	1.47	0.11	0.46	1.47
11SEP90:09:48 TESTING	14	190.000	91.250	41.66	38.70	40.09	41.47	44.66	45.71	4.57	1.58	0.80	3.25	1.25	0.26	0.46	1.47	0.26	0.46	1.47
11SEP90:09:49 TESTING	14	192.500	91.250	41.56	39.10	40.09	41.47	43.99	45.52	3.90	1.36	0.73	3.13	1.02	0.21	0.34	1.25	0.21	0.34	1.25
11SEP90:09:51 TESTING	14	195.000	91.250	41.86	39.49	40.38	41.86	44.09	45.14	3.70	1.36	0.44	3.14	1.25	0.12	0.46	1.25	0.12	0.46	1.25
11SEP90:09:52 TESTING	14	197.500	91.250	42.05	39.49	40.29	42.05	44.28	47.51	3.99	1.47	0.50	3.23	1.36	0.08	0.46	1.25	0.08	0.46	1.25
11SEP90:09:53 TESTING	14	200.000	91.250	42.25	39.49	40.58	42.25	44.28	46.95	3.70	1.36	0.39	3.17	1.25	0.06	0.46	1.13	0.06	0.46	1.13
11SEP90:10:38 TESTING	10	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:39 TESTING	10	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:41 TESTING	10	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:42 TESTING	10	192.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:44 TESTING	10	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:45 TESTING	10	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:47 TESTING	10	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:48 TESTING	10	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:50 TESTING	10	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:51 TESTING	10	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11SEP90:10:12 TESTING	4	185.000	91.250	42.15	39.00	40.48	41.86	45.71	48.08	5.23	1.76	1.29	3.33	1.43	0.21	0.44	1.54	0.21	0.44	1.54
11SEP90:10:14 TESTING	4	187.500	91.250	42.73	40.29	40.97	42.34	46.28	47.70	5.31	1.76	1.08	3.31	1.54	0.13	0.44	1.76	0.13	0.44	1.76
11SEP90:10:15 TESTING	4	190.000	91.250	42.93	40.38	41.07	42.64	46.28	47.51	5.21	1.87	0.85	3.34	1.32	0.28	0.44	1.65	0.28	0.44	1.65
11SEP90:10:16 TESTING	4	192.500	91.250	42.73	40.29	41.17	42.73	45.62	47.33	4.45	1.54	0.89	3.20	1.21	0.21	0.33	1.54	0.21	0.33	1.54

TIME PURPOSE	CONFIG	AZIMUTH	ELEV	TEMP_MEAN	TEMP_MIN	TEMP_05	TEMP_MED	TEMP_95	TEMP_MAX	TEMP_90	TEMP_STDV	T_SKEW	T_ENTRO	T_REYNO	T_CNT175	T_CNT195
		(Degrees)	(Degrees)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(COIMEN - SION - LESS UNIT)	(COIMEN - SION - LESS UNIT)	(COIMEN - SION - LESS UNIT)	(Deg. C)	(Deg. C)
11SEP00:10:18 TESTING	4	195.000	91.250	42.93	40.38	41.27	42.93	45.71	46.95	4.45	1.54	0.62	3.25	1.32	0.12	1.43
11SEP00:10:19 TESTING	4	197.500	91.250	43.41	40.58	41.37	43.31	46.09	49.66	4.73	1.65	0.72	3.36	1.54	0.08	1.43
12SEP00:02:33 TESTING	4	185.000	91.250	30.09	26.43	27.84	30.09	32.35	32.66	4.50	1.59	-0.09	3.27	0.83	0.49	0.65
12SEP00:02:34 TESTING	4	187.500	91.250	29.66	26.16	27.35	29.55	32.08	32.39	4.73	1.57	0.09	3.28	0.82	0.46	0.64
12SEP00:02:36 TESTING	4	190.000	91.250	29.55	26.37	27.51	29.44	32.03	32.39	4.51	1.46	0.28	3.22	0.82	0.44	0.64
12SEP00:02:37 TESTING	4	192.500	91.250	29.55	26.48	27.78	29.39	31.92	32.50	4.14	1.28	0.41	3.12	0.82	0.36	0.64
12SEP00:02:38 TESTING	4	195.000	91.250	29.50	26.59	27.89	29.39	31.87	32.29	3.98	1.28	0.53	3.10	0.99	0.25	0.59
12SEP00:02:39 TESTING	4	197.500	91.250	29.39	26.59	27.89	29.39	31.66	32.19	3.77	1.11	0.66	2.95	0.99	0.13	0.70
12SEP00:02:40 TESTING	4	200.000	91.250	29.44	26.70	27.94	29.44	31.56	32.08	3.61	1.11	0.50	2.96	0.94	0.12	0.64
12SEP00:02:41 TESTING	4	202.500	91.250	29.60	27.08	28.37	29.60	31.45	31.98	3.08	0.94	0.55	2.82	0.99	0.04	0.53
12SEP00:02:42 TESTING	4	205.000	91.250	30.08	27.94	28.96	30.03	31.77	32.13	2.80	0.82	0.60	2.65	0.82	0.04	0.47
12SEP00:02:43 TESTING	4	207.500	91.250	30.29	27.24	29.07	30.29	31.87	32.29	2.80	0.80	0.32	2.65	0.70	0.17	0.35
12SEP00:03:48 TESTING	13	185.000	91.250	29.25	25.36	26.61	29.36	31.58	31.89	4.96	1.83	-1.18	3.37	0.83	0.54	0.71
12SEP00:03:49 TESTING	13	187.500	91.250	28.83	25.19	26.34	28.61	31.47	31.63	5.13	1.89	0.10	3.37	0.83	0.55	0.71
12SEP00:03:51 TESTING	13	190.000	91.250	28.56	25.14	26.34	28.18	31.26	31.58	4.92	1.71	0.36	3.32	0.89	0.50	0.65
12SEP00:03:52 TESTING	13	192.500	91.250	28.34	25.14	26.40	27.97	31.16	31.53	4.76	1.65	0.57	3.26	0.89	0.45	0.59
12SEP00:03:53 TESTING	13	195.000	91.250	28.34	25.36	26.45	28.13	31.11	31.37	4.65	1.53	0.56	3.23	1.00	0.35	0.59
12SEP00:03:53 TESTING	13	197.500	91.250	28.07	25.14	26.56	27.91	30.84	31.21	4.28	1.30	0.90	3.07	0.95	0.28	0.65
12SEP00:03:55 TESTING	13	200.000	91.250	28.13	25.14	26.61	28.02	30.58	31.11	3.96	1.24	0.73	3.05	0.95	0.26	0.65
12SEP00:03:55 TESTING	13	202.500	91.250	28.50	26.07	27.27	28.40	30.63	31.11	3.37	1.06	0.81	2.90	0.95	0.11	0.53
12SEP00:03:56 TESTING	13	205.000	91.250	28.72	26.56	27.53	28.61	30.68	31.00	3.15	1.00	0.64	2.87	0.77	0.23	0.53
12SEP00:03:57 TESTING	13	207.500	91.250	29.04	26.01	27.43	28.93	30.68	31.00	3.26	1.06	0.01	2.94	0.65	0.37	0.41
12SEP00:04:40 TESTING	9	185.000	91.250	28.33	24.95	26.22	28.49	30.14	30.51	3.92	1.35	-0.32	3.13	0.77	0.44	0.71
12SEP00:04:41 TESTING	9	187.500	91.250	27.95	24.68	25.83	27.95	29.93	30.30	4.09	1.35	-0.13	3.20	0.77	0.45	0.71
12SEP00:04:41 TESTING	9	190.000	91.250	27.84	24.79	25.94	27.73	29.93	30.19	3.98	1.29	0.12	3.15	0.77	0.40	0.65
12SEP00:04:42 TESTING	9	192.500	91.250	27.52	24.73	25.94	27.41	29.56	30.30	3.61	1.18	0.34	3.08	0.83	0.32	0.59
12SEP00:04:43 TESTING	9	195.000	91.250	27.84	24.95	26.27	27.79	29.93	30.19	3.66	1.18	0.28	3.06	0.88	0.27	0.59
12SEP00:04:44 TESTING	9	197.500	91.250	27.57	24.90	26.16	27.57	29.66	30.03	3.50	1.06	0.52	2.95	0.83	0.21	0.65
12SEP00:04:45 TESTING	9	200.000	91.250	27.57	24.90	26.22	27.57	29.61	29.98	3.39	1.00	0.40	2.92	0.83	0.19	0.59
12SEP00:04:46 TESTING	9	202.500	91.250	27.95	25.61	26.76	27.90	29.56	29.93	2.80	0.88	0.38	2.76	0.88	0.00	0.53
12SEP00:04:46 TESTING	9	205.000	91.250	28.17	26.05	27.09	28.17	29.56	29.93	2.47	0.83	0.19	2.70	0.71	0.11	0.53
12SEP00:04:47 TESTING	9	207.500	91.250	28.49	25.83	27.25	28.54	29.82	30.14	2.57	0.77	-0.15	2.67	0.59	0.22	0.35
12SEP00:06:15 TESTING	10	185.000	91.000	28.38	25.50	26.32	28.22	30.88	31.04	4.55	1.65	0.24	3.26	0.71	0.58	0.53
12SEP00:06:19 TESTING	10	187.500	91.000	28.17	25.72	26.54	27.84	30.77	31.04	4.23	1.47	0.68	3.06	0.71	0.53	0.47
12SEP00:06:22 TESTING	10	190.000	91.000	28.06	25.72	26.54	27.79	30.56	30.72	4.02	1.24	0.81	2.97	0.71	0.44	0.47
12SEP00:06:24 TESTING	10	192.500	91.000	28.06	25.78	26.76	27.90	30.51	30.83	3.75	1.18	0.97	2.90	0.65	0.46	0.47
12SEP00:06:32 TESTING	10	195.000	91.000	28.27	26.11	27.09	28.11	30.56	30.93	3.48	1.12	0.93	2.88	0.65	0.39	0.47

TIME PURPOSE	CONFIG	AZIMUTH (Degrees)	ELEV (Degrees)	TMP MEAN (Deg. C)	TMP MIN (Deg. C)	TMP OS (Deg. C)	TMP MED (Deg. C)	TMP 95 (Deg. C)	TMP MAX (Deg. C)	T_RNG90 (Deg. C)	T_SKEW (DIMEH- SION- LESS UNIT)		T_ENTRO (DIMEH- SION- LESS UNIT)		T_REYNO (DIMEH- SION- LESS UNIT)		T_CM175 (Deg. C)		T_CM195 (Deg. C)	
12SEP00:06:33 TESTING	10	197.500	91.000	28.17	26.22	27.03	28.06	30.35	30.93	3.32	1.00	1.06	2.81	0.65	0.37	0.24	0.47			
12SEP00:06:33 TESTING	10	200.000	91.000	28.17	26.00	27.03	28.11	30.30	30.93	3.27	1.00	1.04	2.77	0.65	0.34	0.24	0.47			
12SEP00:06:35 TESTING	10	202.500	91.000	28.43	26.11	27.36	28.38	30.51	30.93	3.15	0.94	1.00	2.71	0.71	0.27	0.18	0.35			
12SEP00:06:36 TESTING	10	205.000	91.000	28.70	26.65	27.68	28.54	30.46	31.09	2.78	0.88	0.94	2.70	0.59	0.36	0.18	0.35			
13SEP00:02:00 BASELINE	.	157.000	91.333	29.63	27.04	28.12	29.84	31.22	32.59	3.10	1.08	0.00	2.93	0.72	0.26	0.36	0.84			
13SEP00:02:00 BASELINE	.	159.500	91.333	28.98	25.18	27.04	29.09	30.80	32.17	3.75	1.32	-0.25	3.11	0.96	0.21	0.36	0.84			
13SEP00:02:00 BASELINE	.	162.000	91.333	28.98	25.95	27.37	29.09	30.90	32.06	3.53	1.20	0.10	3.02	0.96	0.14	0.36	0.84			
13SEP00:02:00 BASELINE	.	164.500	91.333	30.35	27.78	28.69	30.51	31.72	32.98	3.03	1.00	-0.20	2.89	0.89	0.11	0.22	0.67			
13SEP00:02:00 BASELINE	.	167.000	91.333	30.24	27.72	28.59	30.45	31.35	32.20	2.77	0.89	-0.66	2.74	0.78	0.11	0.28	0.78			
13SEP00:02:00 BASELINE	.	169.500	91.333	29.87	27.51	28.37	30.08	30.98	32.62	2.61	0.78	-0.61	2.68	0.72	0.10	0.28	0.72			
13SEP00:02:00 BASELINE	.	172.000	91.333	29.71	27.34	28.42	29.87	30.72	32.09	2.30	0.72	-0.58	2.62	0.72	0.05	0.28	0.67			
13SEP00:02:00 BASELINE	.	190.000	91.333	30.08	27.89	28.69	30.30	31.30	31.51	2.61	0.83	-0.45	2.68	0.56	0.31	0.22	0.50			
13SEP00:02:00 BASELINE	.	192.500	91.333	29.98	27.89	28.75	30.08	31.20	31.51	2.45	0.72	-0.22	2.58	0.56	0.24	0.22	0.44			
13SEP00:02:00 BASELINE	.	195.000	91.333	29.92	27.78	28.80	29.98	31.30	31.67	2.50	0.78	0.11	2.64	0.61	0.16	0.22	0.44			
13SEP00:02:00 BASELINE	.	197.500	91.333	29.65	27.67	28.53	29.71	31.09	31.41	2.56	0.72	0.23	2.61	0.56	0.24	0.22	0.50			
13SEP00:02:00 BASELINE	.	200.000	91.333	29.39	27.45	28.37	29.44	30.72	31.20	2.35	0.67	0.25	2.58	0.56	0.23	0.22	0.44			
13SEP00:02:00 BASELINE	.	202.500	91.333	29.98	28.37	29.12	29.98	31.30	31.72	2.18	0.61	0.57	2.46	0.61	0.04	0.22	0.44			
13SEP00:02:00 BASELINE	.	235.333	92.333	29.28	26.47	27.40	29.34	31.25	31.56	3.85	1.11	-0.11	3.00	0.94	0.14	0.28	0.67			
13SEP00:04:00 BASELINE	.	157.000	91.333	28.39	25.67	27.04	28.39	29.89	31.27	2.85	0.90	0.24	2.86	0.62	0.31	0.23	0.62			
13SEP00:04:00 BASELINE	.	159.500	91.333	28.17	25.78	26.71	28.17	29.89	31.00	3.18	0.96	0.24	2.91	0.68	0.28	0.23	0.62			
13SEP00:04:00 BASELINE	.	162.000	91.333	28.17	25.73	26.71	28.23	29.68	31.06	2.96	0.90	0.05	2.80	0.73	0.24	0.23	0.62			
13SEP00:04:00 BASELINE	.	164.500	91.333	28.28	25.95	26.82	28.34	29.78	31.00	2.96	0.96	0.20	2.85	0.73	0.21	0.23	0.57			
13SEP00:04:00 BASELINE	.	167.000	91.333	28.12	25.89	26.77	28.23	29.36	30.79	2.59	0.79	-0.33	2.74	0.68	0.15	0.23	0.73			
13SEP00:04:00 BASELINE	.	169.500	91.333	28.17	25.95	26.77	28.23	29.41	30.90	2.64	0.79	-0.19	2.73	0.79	0.06	0.28	0.73			
13SEP00:04:00 BASELINE	.	172.000	91.333	28.17	25.95	26.93	28.17	29.41	30.79	2.48	0.85	0.05	2.75	0.57	0.29	0.23	0.68			
13SEP00:04:00 BASELINE	.	190.000	91.333	28.50	26.33	27.15	28.39	30.53	30.85	3.38	1.07	0.58	2.89	0.73	0.34	0.23	0.51			
13SEP00:04:00 BASELINE	.	192.500	91.333	28.66	26.33	27.31	28.60	30.69	31.22	3.38	1.02	0.55	2.93	0.90	0.14	0.34	0.57			
13SEP00:04:00 BASELINE	.	195.000	91.333	28.55	26.60	27.42	28.39	30.53	30.79	3.11	0.96	0.74	2.76	0.90	0.06	0.23	0.45			
13SEP00:04:00 BASELINE	.	197.500	91.333	28.39	26.44	27.31	28.34	30.26	30.69	2.95	0.90	0.69	2.75	0.85	0.09	0.23	0.51			
13SEP00:04:00 BASELINE	.	200.000	91.333	28.39	26.22	27.20	28.39	30.16	30.58	2.95	0.85	0.51	2.75	0.73	0.14	0.23	0.45			
13SEP00:04:00 BASELINE	.	235.333	92.333	28.77	26.93	27.85	28.71	30.26	30.69	2.41	0.73	0.73	2.52	0.68	0.07	0.23	0.45			
13SEP00:06:00 BASELINE	.	157.000	91.333	27.20	24.79	25.89	27.36	28.55	29.89	2.66	0.85	-0.05	2.80	0.62	0.26	0.23	0.37			
13SEP00:06:00 BASELINE	.	159.500	91.333	27.53	24.79	26.06	27.58	29.25	30.26	3.19	0.96	0.15	2.90	0.68	0.29	0.28	0.37			
13SEP00:06:00 BASELINE	.	162.000	91.333	27.58	25.12	26.06	27.69	28.87	30.20	2.82	0.90	-0.27	2.83	0.68	0.23	0.23	0.37			
13SEP00:06:00 BASELINE	.	164.500	91.333	27.74	25.24	26.11	27.90	28.98	30.10	2.87	0.90	-0.22	2.79	0.73	0.22	0.17	0.57			
13SEP00:06:00 BASELINE	.	167.000	91.333	27.80	25.45	26.39	28.01	28.87	29.57	2.49	0.79	-0.70	2.63	0.62	0.16	0.23	0.62			

TIME PURPOSE	CONFIG	AZIMUTH	ELEV	TMP_MEAN	TMP_MIN	TMP_05	TMP_MED	TMP_95	TMP_MAX	TMP_RNG90	TMP_STDV	T_SKEW		T_ENTRO		T_REYNO		T_CNT75		T_CNT95
												(DIMEN- SION- LESS	(UNIT)	(DIMEN- SION- LESS	(UNIT)	(DIMEN- SION- LESS	(UNIT)	(Deg. C)	(UNIT)	(Deg. C)
13SEP00:06:00 BASELINE	-	169.500	91.333	27.85	25.45	26.33	27.90	29.09	30.05	2.76	0.85	-0.38	2.75	0.73	0.13	0.28	0.62			
13SEP00:06:00 BASELINE	-	172.000	91.333	28.44	25.84	26.87	28.55	29.84	30.74	2.96	0.96	-0.28	2.89	0.79	0.16	0.28	0.68			
13SEP00:06:00 BASELINE	-	190.000	91.333	28.28	25.89	26.77	28.23	29.94	30.10	3.18	1.02	0.04	2.90	0.62	0.42	0.23	0.51			
13SEP00:06:00 BASELINE	-	192.500	91.333	28.39	26.11	27.04	28.34	30.00	30.26	2.96	0.96	0.18	2.82	0.62	0.35	0.23	0.51			
13SEP00:06:00 BASELINE	-	195.000	91.333	28.50	26.17	27.20	28.50	30.00	30.21	2.79	0.90	0.11	2.79	0.68	0.25	0.23	0.45			
13SEP00:06:00 BASELINE	-	197.500	91.333	28.44	26.22	27.15	28.55	30.05	30.26	2.90	0.85	0.09	2.77	0.62	0.28	0.23	0.62			
13SEP00:06:00 BASELINE	-	200.000	91.333	28.55	26.00	27.20	28.66	30.05	30.42	2.85	0.85	-0.07	2.77	0.62	0.27	0.23	0.57			
13SEP00:06:00 BASELINE	-	202.500	91.333	28.93	27.15	28.07	28.98	30.10	30.31	2.04	0.62	0.18	2.42	0.57	0.05	0.23	0.51			
13SEP00:06:00 BASELINE	-	235.333	92.333	27.90	24.79	25.78	28.01	29.73	30.31	3.95	1.13	-0.38	3.03	0.90	0.24	0.23	0.57			
13SEP00:08:00 BASELINE	-	157.000	91.333	30.55	28.57	29.81	30.60	31.71	33.44	1.91	0.61	0.92	2.38	0.55	0.04	0.17	0.50			
13SEP00:08:00 BASELINE	-	159.500	91.333	30.97	29.38	30.28	31.03	31.82	32.61	1.53	0.50	0.18	2.20	0.44	0.02	0.17	0.44			
13SEP00:08:00 BASELINE	-	162.000	91.333	31.08	29.75	30.39	31.08	32.08	33.70	1.69	0.55	1.06	2.26	0.55	-0.02	0.17	0.50			
13SEP00:08:00 BASELINE	-	164.500	91.333	31.45	29.97	30.76	31.45	32.50	33.70	1.74	0.55	0.84	2.31	0.50	0.14	0.17	0.44			
13SEP00:08:00 BASELINE	-	167.000	91.333	32.24	30.23	31.13	32.34	33.65	35.05	2.52	0.83	0.36	2.73	0.72	0.12	0.28	0.61			
13SEP00:08:00 BASELINE	-	169.500	91.333	32.66	30.87	31.87	32.71	33.65	35.10	1.78	0.61	0.28	2.42	0.55	0.09	0.17	0.44			
13SEP00:08:00 BASELINE	-	172.000	91.333	33.02	31.40	32.13	33.02	34.22	35.41	2.09	0.66	0.53	2.52	0.61	0.12	0.22	0.50			
13SEP00:08:00 BASELINE	-	190.000	91.333	33.44	31.61	32.71	33.44	34.17	35.51	1.46	0.44	-0.60	2.13	0.39	0.18	0.17	0.39			
13SEP00:08:00 BASELINE	-	192.500	91.333	33.44	31.61	32.92	33.44	34.06	35.30	1.14	0.39	-0.19	2.02	0.39	0.08	0.17	0.39			
13SEP00:08:00 BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13SEP00:08:00 BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13SEP00:08:00 BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13SEP00:08:00 BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13SEP00:08:00 BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
13SEP00:10:00 BASELINE	-	157.000	91.333	38.27	34.28	35.77	38.37	40.37	41.27	4.60	1.56	-0.21	3.35	1.34	0.12	0.32	0.91			
13SEP00:10:00 BASELINE	-	159.500	91.333	37.82	34.18	35.37	37.97	40.18	40.63	4.81	1.56	-0.15	3.35	1.35	0.13	0.33	0.92			
13SEP00:10:00 BASELINE	-	162.000	91.333	38.25	34.36	35.86	38.15	41.15	42.49	5.30	1.70	0.24	3.48	1.34	0.21	0.31	0.83			
13SEP00:10:00 BASELINE	-	164.500	91.333	38.60	34.98	36.27	38.40	41.65	43.12	5.38	1.75	0.35	3.47	1.50	0.14	0.36	0.98			
13SEP00:10:00 BASELINE	-	167.000	91.333	38.90	35.75	36.78	38.65	41.65	43.08	4.87	1.70	0.33	3.37	1.29	0.22	0.47	1.03			
13SEP00:10:00 BASELINE	-	169.500	91.333	38.90	34.93	36.62	38.75	41.84	43.22	5.22	1.75	0.30	3.46	1.34	0.22	0.41	1.14			
13SEP00:10:00 BASELINE	-	172.000	91.333	39.10	35.75	36.98	39.10	41.89	43.27	4.91	1.72	0.26	3.40	1.62	0.07	0.54	1.19			
13SEP00:10:00 BASELINE	-	190.000	91.333	38.50	36.06	36.78	38.00	41.89	43.27	5.12	1.83	0.87	3.21	1.40	0.22	0.43	1.51			
13SEP00:10:00 BASELINE	-	192.500	91.333	38.20	36.27	36.78	37.89	41.30	42.98	4.52	1.40	1.24	3.05	1.19	0.17	0.33	1.29			
13SEP00:10:00 BASELINE	-	195.000	91.333	38.30	36.37	36.88	38.20	41.00	42.78	4.12	1.40	0.86	3.12	1.40	0.00	0.43	1.29			
13SEP00:10:00 BASELINE	-	197.500	91.333	38.90	36.67	37.18	38.70	41.89	46.67	4.71	1.72	1.51	3.27	1.29	0.25	0.43	1.40			
13SEP00:10:00 BASELINE	-	200.000	91.333	38.90	36.78	37.29	38.70	41.60	45.99	4.31	1.62	1.36	3.22	1.29	0.21	0.43	1.29			
13SEP00:10:00 BASELINE	-	202.500	91.333	38.70	36.88	37.49	38.60	41.10	42.19	3.61	1.19	0.92	2.95	1.19	-0.05	0.33	0.97			
13SEP00:10:00 BASELINE	-	235.333	92.333	42.93	37.44	38.45	43.17	50.38	51.78	11.93	4.27	0.58	3.85	3.67	0.17	1.23	2.76			

TIME PURPOSE	CONFIG	AZIMUTH (Degrees)	ELEV (Degrees)	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_MAX (Deg. C)	TMP_RNG90 (Deg. C)	TMP_STDV (Deg. C)	T_SKEW (DIMEN- SION- LESS		T_ENTRO (DIMEN- SION- LESS		T_REYNO (DIMEN- SION- LESS		T_CNT75 (Deg. C)		T_CNT95 (Deg. C)	
13SEP00:12:00 BASELINE	-	157.000	91.333	42.17	37.92	39.68	42.17	45.10	49.17	5.42	2.48	0.18	3.34	1.87	0.16	0.63	1.56				
13SEP00:12:00 BASELINE	-	159.500	91.333	42.17	37.92	39.43	42.41	45.34	47.27	5.91	2.48	0.09	3.37	1.87	0.21	0.63	1.56				
13SEP00:12:00 BASELINE	-	162.000	91.333	41.92	37.92	39.18	41.92	45.58	46.79	6.40	2.48	0.25	3.40	1.87	0.27	0.63	1.25				
13SEP00:12:00 BASELINE	-	164.500	91.333	41.73	37.73	38.64	41.63	45.55	47.09	6.91	2.39	0.26	3.70	1.98	0.18	0.42	1.36				
13SEP00:12:00 BASELINE	-	167.000	91.333	42.03	38.33	39.14	42.03	45.74	46.89	6.60	2.29	0.24	3.62	1.77	0.25	0.52	1.36				
13SEP00:12:00 BASELINE	-	169.500	91.333	42.03	37.12	38.94	42.13	45.84	47.37	6.90	2.39	0.20	3.74	1.77	0.25	0.63	1.56				
13SEP00:12:00 BASELINE	-	172.000	91.333	42.42	38.03	39.44	42.52	46.12	47.56	6.68	2.28	0.21	3.69	2.07	0.07	0.52	1.55				
13SEP00:12:00 BASELINE	-	190.000	91.333	41.03	38.23	38.73	40.24	45.83	47.37	7.10	2.48	0.98	3.49	1.76	0.28	0.52	1.86				
13SEP00:12:00 BASELINE	-	192.500	91.333	40.64	38.33	38.94	40.24	44.67	47.27	5.73	1.86	1.36	3.27	1.45	0.20	0.31	1.66				
13SEP00:12:00 BASELINE	-	195.000	91.333	40.84	38.63	39.04	40.54	44.18	46.31	5.15	1.76	0.92	3.31	1.76	0.01	0.62	1.55				
13SEP00:12:00 BASELINE	-	197.500	91.333	41.33	38.33	39.14	40.93	45.45	50.59	6.31	2.17	1.52	3.53	1.66	0.27	0.52	1.76				
13SEP00:12:00 BASELINE	-	200.000	91.333	41.43	38.83	39.34	41.13	44.96	50.50	5.62	1.97	1.39	3.48	1.55	0.22	0.42	1.55				
13SEP00:12:00 BASELINE	-	202.500	91.333	40.84	38.33	39.34	40.54	43.79	45.35	4.45	1.45	0.99	3.16	1.45	-0.03	0.42	1.25				
13SEP00:12:00 BASELINE	-	235.333	92.333	45.06	39.14	39.84	45.25	52.74	54.59	12.90	4.11	0.46	4.16	3.50	0.16	0.83	2.58				
13SEP00:14:00 BASELINE	-	157.000	91.333	45.17	40.56	41.85	45.37	48.34	53.41	6.50	2.40	0.18	3.72	1.88	0.23	0.53	1.46				
13SEP00:14:00 BASELINE	-	159.500	91.333	45.07	39.75	41.54	45.26	48.53	52.20	6.99	2.42	-0.02	3.77	1.82	0.25	0.41	1.42				
13SEP00:14:00 BASELINE	-	162.000	91.333	44.88	40.55	41.54	44.88	48.72	49.95	7.18	2.52	0.18	3.72	1.62	0.36	0.41	1.11				
13SEP00:14:00 BASELINE	-	164.500	91.333	45.17	40.95	41.94	45.07	49.29	54.60	7.35	2.52	0.31	3.72	2.02	0.21	0.41	1.32				
13SEP00:14:00 BASELINE	-	167.000	91.333	45.45	41.23	42.22	45.45	49.46	54.78	7.24	2.63	0.44	3.71	2.13	0.20	0.61	1.42				
13SEP00:14:00 BASELINE	-	169.500	91.333	45.45	40.14	41.93	45.74	49.46	50.78	7.54	2.63	0.09	3.79	1.83	0.30	0.61	1.73				
13SEP00:14:00 BASELINE	-	172.000	91.333	45.54	41.03	42.42	45.83	49.08	50.41	6.67	2.33	0.10	3.69	2.03	0.13	0.51	1.52				
13SEP00:14:00 BASELINE	-	190.000	91.333	44.18	41.23	42.02	43.30	49.46	51.72	7.44	2.53	1.19	3.49	1.93	0.24	0.51	1.83				
13SEP00:14:00 BASELINE	-	192.500	91.333	43.79	41.13	42.02	43.30	47.94	50.69	5.92	1.93	1.45	3.32	1.52	0.21	0.41	1.52				
13SEP00:14:00 BASELINE	-	195.000	91.333	44.09	41.73	42.22	43.89	47.47	49.08	5.24	1.62	0.91	3.32	1.52	0.05	0.51	1.42				
13SEP00:14:00 BASELINE	-	197.500	91.333	44.57	41.53	42.42	44.09	49.18	52.46	6.76	2.23	1.63	3.47	1.42	0.35	0.51	1.62				
13SEP00:14:00 BASELINE	-	200.000	91.333	44.67	41.73	42.62	44.18	48.61	52.28	5.99	2.13	1.38	3.48	1.52	0.29	0.51	1.52				
13SEP00:14:00 BASELINE	-	202.500	91.333	43.99	41.53	42.62	43.69	46.70	50.12	4.08	1.32	1.05	3.08	1.32	0.03	0.41	1.12				
13SEP00:14:00 BASELINE	-	235.333	92.333	46.79	41.73	42.91	46.89	52.84	54.50	9.93	3.23	0.54	3.92	2.63	0.17	0.61	2.03				
13SEP00:16:00 BASELINE	-	157.000	91.333	44.78	40.55	42.14	45.17	47.29	51.27	5.15	1.83	0.08	3.48	1.32	0.24	0.41	1.12				
13SEP00:16:00 BASELINE	-	159.500	91.333	44.59	39.85	41.84	44.88	47.00	50.33	5.16	1.83	-0.21	3.45	1.32	0.26	0.41	1.02				
13SEP00:16:00 BASELINE	-	162.000	91.333	44.59	40.35	41.94	44.69	47.48	48.43	5.54	1.93	0.01	3.52	1.22	0.39	0.41	0.82				
13SEP00:16:00 BASELINE	-	164.500	91.333	44.39	41.05	42.04	44.30	47.19	50.80	5.15	1.83	0.22	3.44	1.43	0.22	0.41	0.92				
13SEP00:16:00 BASELINE	-	167.000	91.333	44.20	40.75	41.84	44.10	47.19	51.92	5.35	2.03	0.52	3.47	1.63	0.19	0.51	1.12				
13SEP00:16:00 BASELINE	-	169.500	91.333	44.69	40.05	42.04	44.78	47.77	48.63	5.73	2.03	0.06	3.55	1.43	0.32	0.51	1.22				
13SEP00:16:00 BASELINE	-	172.000	91.333	44.20	40.25	41.74	44.30	47.19	47.86	5.45	1.83	0.09	3.50	1.53	0.16	0.41	1.12				
13SEP00:16:00 BASELINE	-	190.000	91.333	43.71	40.55	42.04	43.12	48.24	49.76	6.20	1.93	1.37	3.25	1.53	0.19	0.41	1.32				
13SEP00:16:00 BASELINE	-	192.500	91.333	43.02	40.55	41.94	42.63	45.94	48.43	4.00	1.32	1.58	2.93	1.02	0.25	0.31	1.02				

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV (Degrees)	TMP_MEAN (Deg. C)	TMP_MIN (Deg. C)	TMP_05 (Deg. C)	TMP_MED (Deg. C)	TMP_95 (Deg. C)	TMP_MAX (Deg. C)	TMP_RNG00 (Deg. C)	TMP_STDV (Deg. C)	T_SKEW (DIMEH- SION- LESS UNIT)			T_ENTRO (DIMEH- SION- LESS UNIT)			T_REYNO (DIMEH- SION- LESS UNIT)			T_CN175 (Deg. C)			T_CN195 (Deg. C)		
13SEP00:16:00 BASELINE	-	195.000	91.333	43.22	41.35	42.04	43.02	45.56	46.52	3.52	1.12	0.93	2.92	1.12	0.01	0.41	1.02									
13SEP00:16:00 BASELINE	-	197.500	91.333	43.39	40.92	41.81	43.09	47.35	49.83	5.54	1.65	1.82	3.17	1.04	0.39	0.41	1.24									
13SEP00:16:00 BASELINE	-	200.000	91.333	43.48	41.32	42.11	43.19	46.20	50.67	4.09	1.55	2.02	3.09	0.93	0.40	0.31	1.04									
13SEP00:16:00 BASELINE	-	202.500	91.333	42.90	40.92	42.01	42.80	44.75	47.16	2.74	0.93	0.90	2.75	0.83	0.07	0.31	0.83									
13SEP00:16:00 BASELINE	-	235.333	92.333	44.36	41.51	42.40	44.36	47.35	48.40	4.95	1.65	0.43	3.34	1.45	0.17	0.41	1.14									
13SEP00:18:00 BASELINE	-	157.000	91.333	41.46	39.37	40.32	41.32	43.43	44.90	3.11	0.91	0.95	2.84	0.76	0.17	0.20	0.51									
13SEP00:18:00 BASELINE	-	159.500	91.333	41.12	38.31	40.12	41.02	42.65	44.41	2.53	0.76	0.76	2.67	0.66	0.14	0.20	0.51									
13SEP00:18:00 BASELINE	-	162.000	91.333	41.02	38.67	39.87	40.97	42.50	43.39	2.63	0.81	0.29	2.76	0.66	0.16	0.20	0.46									
13SEP00:18:00 BASELINE	-	164.500	91.333	40.77	39.02	39.72	40.72	42.11	44.46	2.39	0.71	0.49	2.68	0.61	0.16	0.20	0.46									
13SEP00:18:00 BASELINE	-	167.000	91.333	40.87	38.52	39.82	40.87	42.21	46.73	2.38	0.81	1.33	2.69	0.71	0.08	0.20	0.61									
13SEP00:18:00 BASELINE	-	169.500	91.333	40.87	38.77	39.92	40.82	42.21	44.70	2.28	0.71	0.70	2.64	0.66	0.11	0.20	0.51									
13SEP00:18:00 BASELINE	-	172.000	91.333	40.67	38.87	39.72	40.67	41.86	44.26	2.14	0.66	0.56	2.55	0.56	0.10	0.15	0.41									
13SEP00:18:00 BASELINE	-	190.000	91.333	40.67	39.57	40.22	40.57	42.21	43.53	1.99	0.56	2.81	1.88	0.46	0.19	0.10	0.46									
13SEP00:18:00 BASELINE	-	192.500	91.333	40.47	39.12	40.12	40.52	41.07	42.25	0.95	0.36	1.44	1.76	0.25	0.24	0.10	0.25									
13SEP00:18:00 BASELINE	-	195.000	91.333	40.47	39.47	40.02	40.52	41.02	41.96	1.00	0.30	0.80	1.81	0.30	0.12	0.10	0.30									
13SEP00:18:00 BASELINE	-	197.500	91.333	40.37	39.32	40.07	40.47	41.12	43.53	1.05	0.46	3.46	1.75	0.20	0.55	0.10	0.25									
13SEP00:18:00 BASELINE	-	200.000	91.333	40.37	39.62	40.07	40.37	40.82	43.53	0.75	0.36	4.23	1.59	0.20	0.42	0.10	0.25									
13SEP00:18:00 BASELINE	-	202.500	91.333	40.27	39.42	39.97	40.32	40.62	41.51	0.65	0.20	-0.08	1.47	0.15	0.20	0.10	0.20									
13SEP00:18:00 BASELINE	-	235.333	92.333	40.30	38.64	39.70	40.35	40.94	41.39	1.25	0.41	-0.25	2.07	0.36	0.04	0.16	0.31									
13SEP00:20:00 BASELINE	-	157.000	91.333	40.91	38.36	39.82	40.96	42.25	43.53	2.43	0.78	0.08	2.70	0.62	0.19	0.26	0.52									
13SEP00:20:00 BASELINE	-	159.500	91.333	40.81	38.91	39.77	40.86	41.75	42.99	1.99	0.68	-0.25	2.53	0.57	0.15	0.21	0.47									
13SEP00:20:00 BASELINE	-	162.000	91.333	40.96	39.06	39.87	41.01	41.90	43.28	2.04	0.68	-0.34	2.51	0.47	0.29	0.21	0.52									
13SEP00:20:00 BASELINE	-	164.500	91.333	40.86	38.96	39.72	40.91	41.90	43.04	2.19	0.73	-0.25	2.58	0.62	0.19	0.16	0.47									
13SEP00:20:00 BASELINE	-	167.000	91.333	40.86	38.96	39.77	40.96	41.75	43.09	1.99	0.68	-0.34	2.49	0.52	0.25	0.21	0.52									
13SEP00:20:00 BASELINE	-	169.500	91.333	41.06	39.16	39.97	41.26	42.05	44.50	2.09	0.76	-0.19	2.50	0.54	0.25	0.33	0.65									
13SEP00:20:00 BASELINE	-	172.000	91.333	41.06	39.16	40.07	41.16	42.05	44.21	1.99	0.65	-0.14	2.49	0.65	0.11	0.33	0.65									
13SEP00:20:00 BASELINE	-	192.000	91.333	41.51	39.42	40.12	41.85	42.30	42.50	2.18	0.73	-0.99	2.33	0.57	0.19	0.21	0.52									
13SEP00:20:00 BASELINE	-	195.500	91.333	41.41	39.42	40.17	41.61	42.20	42.35	2.04	0.62	-1.04	2.35	0.52	0.21	0.26	0.47									
13SEP00:20:00 BASELINE	-	197.500	91.333	41.46	39.47	40.42	41.61	42.20	42.45	1.79	0.57	-0.84	2.32	0.52	0.06	0.21	0.42									
13SEP00:20:00 BASELINE	-	197.500	91.333	41.06	38.96	39.92	41.26	41.85	42.15	1.94	0.62	-0.90	2.41	0.52	0.18	0.21	0.47									
13SEP00:20:00 BASELINE	-	200.000	91.333	41.06	38.81	39.92	41.26	41.81	42.15	1.89	0.62	-0.96	2.41	0.52	0.17	0.21	0.47									
13SEP00:20:00 BASELINE	-	202.500	91.333	41.26	38.91	40.47	41.41	41.75	42.05	1.29	0.42	-1.12	2.03	0.42	0.01	0.21	0.47									
13SEP00:20:00 BASELINE	-	235.333	92.333	40.22	37.90	38.66	40.22	41.71	41.90	3.03	0.88	-0.20	2.78	0.78	0.13	0.26	0.52									
13SEP00:22:00 BASELINE	-	157.000	91.333	36.79	34.38	35.90	36.87	37.53	38.26	1.65	0.52	-0.59	2.35	0.44	0.18	0.18	0.44									
13SEP00:22:00 BASELINE	-	159.500	91.333	37.02	35.13	36.16	37.13	37.84	39.20	1.68	0.53	-0.39	2.35	0.48	0.13	0.21	0.42									
13SEP00:22:00 BASELINE	-	162.000	91.333	37.02	35.29	36.00	37.08	37.94	39.15	1.94	0.64	-0.29	2.43	0.42	0.30	0.16	0.48									
13SEP00:22:00 BASELINE	-	164.500	91.333	37.08	35.39	36.05	37.08	37.94	39.10	1.88	0.64	-0.29	2.38	0.53	0.20	0.16	0.42									

TIME PURPOSE	CONFIG	AZIMUTH	ELEV	TMP_MEAN	TMP_MIN	TMP_05	TMP_MED	TMP_95	TMP_MAX	T_RNG90	T_SKEW		T_ENTRO	T_REYNO		T_CNI75	T_CNI95
											(DIMEN-)	(DIMEN-)		(DIMEN-)	(DIMEN-)		
			(Degrees)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	(Deg. C)	LESS	LESS	UNIT)	UNIT)	UNIT)	(Deg. C)	(Deg. C)
13SEP00:22:00 BASELINE	.	167.000	91.333	37.23	35.49	36.26	37.33	38.09	39.15	1.83	-0.36	2.38	0.48	0.26	0.21	0.48	0.48
13SEP00:22:00 BASELINE	.	169.500	91.333	37.38	35.64	36.36	37.43	38.14	40.15	1.78	-0.33	2.35	0.48	0.17	0.21	0.48	0.48
13SEP00:22:00 BASELINE	.	172.000	91.333	37.33	35.49	36.41	37.38	38.14	40.00	1.73	-0.58	2.37	0.53	0.07	0.21	0.48	0.48
13SEP00:22:00 BASELINE	.	190.000	91.333	37.69	35.70	36.44	37.91	38.42	38.72	1.98	-0.62	2.36	0.47	0.25	0.18	0.41	0.41
13SEP00:22:00 BASELINE	.	192.500	91.333	37.84	35.95	36.77	37.99	38.59	38.75	1.82	-0.53	2.25	0.42	0.19	0.21	0.42	0.42
13SEP00:22:00 BASELINE	.	195.000	91.333	37.61	35.67	36.62	37.74	38.37	38.49	1.75	-0.52	2.27	0.52	0.04	0.16	0.36	0.36
13SEP00:22:00 BASELINE	.	197.500	91.333	37.76	35.77	36.64	37.91	38.47	38.67	1.83	-0.55	2.26	0.47	0.17	0.18	0.41	0.41
13SEP00:22:00 BASELINE	.	200.000	91.333	37.63	35.72	36.62	37.81	38.29	38.67	1.68	-0.55	2.26	0.47	0.15	0.18	0.39	0.39
13SEP00:22:00 BASELINE	.	202.500	91.333	37.81	36.39	37.10	37.94	38.39	38.62	1.29	-0.39	1.99	0.41	-0.07	0.16	0.36	0.36
13SEP00:22:00 BASELINE	.	235.333	92.333	37.08	34.82	35.64	37.08	38.39	38.60	2.75	-0.65	2.70	0.74	0.12	0.21	0.48	0.48
14SEP00:00:00 BASELINE	.	157.000	91.333	33.91	32.29	32.87	33.91	34.94	35.41	2.08	0.70	2.53	0.48	0.34	0.22	0.43	0.43
14SEP00:00:00 BASELINE	.	159.500	91.333	33.75	31.98	32.81	33.86	34.48	35.41	1.66	0.59	2.33	0.43	0.22	0.22	0.38	0.38
14SEP00:00:00 BASELINE	.	162.000	91.333	34.43	32.76	33.60	34.43	35.20	36.33	1.60	-0.54	2.32	0.38	0.28	0.16	0.43	0.43
14SEP00:00:00 BASELINE	.	164.500	91.333	34.48	32.97	33.70	34.53	35.25	36.33	1.55	-0.48	2.23	0.43	0.09	0.16	0.38	0.38
14SEP00:00:00 BASELINE	.	167.000	91.333	34.53	32.97	33.65	34.63	35.36	36.18	1.71	-0.59	2.37	0.43	0.30	0.16	0.48	0.48
14SEP00:00:00 BASELINE	.	169.500	91.333	34.53	32.87	33.60	34.74	35.15	36.69	1.55	-0.48	2.14	0.48	0.06	0.22	0.48	0.48
14SEP00:00:00 BASELINE	.	172.000	91.333	34.58	32.87	33.65	34.74	35.25	36.84	1.60	-0.48	2.21	0.48	0.03	0.22	0.43	0.43
14SEP00:00:00 BASELINE	.	190.000	91.333	34.83	33.04	33.72	35.09	35.40	35.60	1.68	-0.53	2.08	0.42	0.23	0.16	0.37	0.37
14SEP00:00:00 BASELINE	.	192.500	91.333	34.88	33.22	33.98	35.06	35.32	35.45	1.34	-0.42	1.86	0.37	0.15	0.16	0.32	0.32
14SEP00:00:00 BASELINE	.	195.000	91.333	34.80	33.27	33.98	34.93	35.24	35.45	1.27	-0.40	1.91	0.40	0.01	0.13	0.29	0.29
14SEP00:00:00 BASELINE	.	197.500	91.333	35.25	33.83	34.35	35.41	35.77	35.92	1.42	-0.42	1.97	0.37	0.16	0.16	0.34	0.34
14SEP00:00:00 BASELINE	.	200.000	91.333	35.36	33.83	34.50	35.51	35.87	36.02	1.36	-0.45	2.02	0.37	0.15	0.16	0.32	0.32
14SEP00:00:00 BASELINE	.	202.500	91.333	35.48	34.19	34.92	35.59	35.87	36.00	0.95	-0.32	1.71	0.32	-0.02	0.13	0.32	0.32
14SEP00:00:00 BASELINE	.	235.333	92.333	35.05	33.08	33.75	35.10	36.12	36.74	2.37	-0.47	2.57	0.59	0.15	0.22	0.43	0.43

## APPENDIX C: VISIBLE SCENE METRICS



TIME PURPOSE	CONFIG	AZIMUTH	ELEV	V_MEAN		V_MIN		V_MEDIAN		V_PEROS		V_MAX		V_STD		V_SKEW		V_ENTRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(DIMEN- SION- LESS UNIT)	(DIMEN- SION- LESS UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
06SEP90:06:59 TRAINING	1	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:01 TRAINING	1	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:03 TRAINING	1	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:04 TRAINING	1	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:09 TRAINING	1	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:10 TRAINING	1	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:11 TRAINING	1	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:11 TRAINING	1	179.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:12 TRAINING	1	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:07:13 TRAINING	1	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
06SEP90:10:50 DEMONSTRATION	.	185.000	91.250	3163	564	2162	3205	3924	8774	1762.00	574	-0.0230	7.6920	106	354	.	.	.	.
06SEP90:10:52 DEMONSTRATION	.	187.500	91.250	3012	606	2114	3053	3714	9923	1600.00	535	0.7030	7.5770	87	262	.	.	.	.
06SEP90:10:54 DEMONSTRATION	.	190.000	91.250	3017	572	2092	3083	3725	8654	1633.00	512	-0.2430	7.5810	80	226	.	.	.	.
06SEP90:10:56 DEMONSTRATION	.	192.500	91.250	3072	527	2193	3110	3803	8544	1610.00	513	-0.1390	7.5970	96	270	.	.	.	.
06SEP90:10:58 DEMONSTRATION	.	195.000	91.250	3067	589	2061	3120	3858	11507	1797.00	554	0.0650	7.6540	107	388	.	.	.	.
06SEP90:11:00 DEMONSTRATION	.	197.500	91.250	3060	582	2010	3094	3888	8313	1878.00	569	-0.1080	7.6950	134	416	.	.	.	.
06SEP90:11:02 DEMONSTRATION	.	200.000	91.250	3201	574	2287	3235	3963	8237	1676.00	539	0.0500	7.6240	100	364	.	.	.	.
06SEP90:11:06 DEMONSTRATION	.	202.500	91.250	3222	651	2381	3251	3877	8701	1496.00	486	-0.1160	7.5080	100	366	.	.	.	.
06SEP90:11:09 DEMONSTRATION	.	205.000	91.250	3343	682	2493	3369	4012	9424	1519.00	502	0.0160	7.5320	103	331	.	.	.	.
06SEP90:11:11 DEMONSTRATION	.	207.500	91.250	3434	713	2631	3441	4185	7921	1554.00	505	0.2210	7.5210	91	301	.	.	.	.
07SEP90:08:18 TRAINING	2	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:19 TRAINING	2	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:20 TRAINING	2	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:21 TRAINING	2	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:22 TRAINING	2	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:23 TRAINING	2	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:24 TRAINING	2	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:25 TRAINING	2	179.500	91.339	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:26 TRAINING	2	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:08:27 TRAINING	2	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:35 TRAINING	2	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:36 TRAINING	2	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:37 TRAINING	2	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:38 TRAINING	2	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:39 TRAINING	2	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:40 TRAINING	2	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:41 TRAINING	2	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	V_PERDS (BRIGHT- NESS VALUE)	V_MEDIAN (BRIGHT- NESS VALUE)	V_PER95 (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_RNG90 (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_SKEW (DINEM- SION- LESS UNIT)	V_ENTRO (DINEM- SION- LESS UNIT)	V_CN175 (BRIGHT- NESS VALUE)	V_CN190 (BRIGHT- NESS VALUE)
07SEP90:10:42 TRAINING	2	179.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:43 TRAINING	2	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:10:44 TRAINING	2	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
07SEP90:12:00 TESTING	7	235.284	92.337	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:03:16 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:03:21 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:03:26 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:03:38 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:03:56 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:04:09 TESTING	7	235.284	92.336	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:04:53 TESTING	8	235.277	92.339	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:05:04 TESTING	8	235.277	92.339	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:05:13 TESTING	8	235.277	92.339	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:05:22 TESTING	8	235.277	92.339	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:05:43 TESTING	8	235.277	92.339	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:45 TESTING	4	185.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:46 TESTING	4	187.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:47 TESTING	4	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:48 TESTING	4	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:49 TESTING	4	195.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:51 TESTING	4	197.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:52 TESTING	4	200.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:53 TESTING	4	202.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:06:54 TESTING	4	205.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:29 TESTING	5	185.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:30 TESTING	5	187.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:31 TESTING	5	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:32 TESTING	5	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:33 TESTING	5	195.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:34 TESTING	5	197.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:36 TESTING	5	200.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:37 TESTING	5	202.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:07:38 TESTING	5	205.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:10 TESTING	6	185.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:11 TESTING	6	187.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:12 TESTING	6	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:13 TESTING	6	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.

TIME PURPOSE	CONFIG	AZIMUTH	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PEROS		V_MAX		V_STD		V_SKEW		V_ENIRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(DIMEN- LESS UNIT)	(DIMEN- LESS UNIT)	(DIMEN- LESS UNIT)	(DIMEN- LESS UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
08SEP90:08:15 TESTING	6	195.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:16 TESTING	6	197.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:17 TESTING	6	200.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:18 TESTING	6	202.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:19 TESTING	6	205.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:09:53 TESTING	9	190.000	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:09:54 TESTING	9	192.500	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:09:55 TESTING	9	195.000	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:56 TESTING	9	197.500	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:57 TESTING	9	200.000	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:58 TESTING	9	202.500	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
08SEP90:08:59 TESTING	9	205.000	91.000	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:22 TRAINING	1	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:24 TRAINING	1	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:25 TRAINING	1	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:26 TRAINING	1	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:27 TRAINING	1	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:29 TRAINING	1	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:30 TRAINING	1	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:31 TRAINING	1	179.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:32 TRAINING	1	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:03:33 TRAINING	1	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:27 TRAINING	2	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:28 TRAINING	2	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:29 TRAINING	2	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:30 TRAINING	2	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:31 TRAINING	2	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:32 TRAINING	2	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:33 TRAINING	2	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:34 TRAINING	2	179.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:35 TRAINING	2	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:04:36 TRAINING	2	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:46 TRAINING	3	162.000	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:48 TRAINING	3	164.500	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:49 TRAINING	3	167.000	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:50 TRAINING	3	169.500	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:52 TRAINING	3	172.000	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PER95		V_MAX		V_STD		V_SKEW		V_ENTRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(DINEN- SLOW UNIT)	(DINEN- SLOW UNIT)	(DINEN- SLOW UNIT)	(DINEN- SLOW UNIT)
10SEP90:05:53 TRAINING	3	174.500	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:54 TRAINING	3	177.000	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:58 TRAINING	3	179.500	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:05:59 TRAINING	3	182.000	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:06:00 TRAINING	3	184.500	90.750	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:07 TRAINING	1	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:08 TRAINING	1	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:09 TRAINING	1	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:11 TRAINING	1	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:13 TRAINING	1	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:14 TRAINING	1	174.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:15 TRAINING	1	177.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:16 TRAINING	1	179.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:18 TRAINING	1	182.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
10SEP90:08:19 TRAINING	1	184.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:16 TESTING	1	185.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:19 TESTING	1	187.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:21 TESTING	1	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:22 TESTING	1	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:23 TESTING	1	195.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:25 TESTING	1	197.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
12SEP90:04:26 TESTING	1	200.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:42 TESTING	2	185.000	91.290	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:43 TESTING	2	187.500	91.290	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:43 TESTING	2	190.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:45 TESTING	2	192.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:46 TESTING	2	195.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:46 TESTING	2	197.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:47 TESTING	2	200.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:48 TESTING	2	202.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:48 TESTING	2	205.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:50 TESTING	2	207.500	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:04:51 TESTING	2	210.000	91.250	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
11SEP90:08:19 TESTING	12	185.000	91.250	2186	700	1347	2169	3007	4394	1660.00	502	-0.0890	7.5940	72	278						
11SEP90:08:24 TESTING	12	187.500	91.250	2443	740	1420	2357	3549	16055	2129.00	692	0.9610	7.8440	88	283						
11SEP90:08:25 TESTING	12	190.000	91.250	2439	684	1399	2372	3489	4342	2090.00	637	0.0290	7.7910	96	262						
11SEP90:08:27 TESTING	12	192.500	91.250	2470	598	1556	2441	3436	8218	1880.00	567	0.0670	7.7090	76	259						

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN (BRIGHT- MESS VALUE)	V_MIN (BRIGHT- MESS VALUE)	V_PER05 (BRIGHT- MESS VALUE)	V_MEDIAN (BRIGHT- MESS VALUE)	V_PER95 (BRIGHT- MESS VALUE)	V_MAX (BRIGHT- MESS VALUE)	V_STD (BRIGHT- MESS VALUE)	V_SKEW (DIMEN- SION- LESS UNIT)	V_ENTRO (DIMEN- SION- LESS UNIT)	V_CN190 (BRIGHT- MESS VALUE)
11SEP90:08:29 TESTING	12	195.000	91.250	2465	911	1628	2450	3255	5083 1627.00	498	-0.1030	7.5720	97 273
11SEP90:08:31 TESTING	12	197.500	91.250	2428	890	1566	2424	3219	4811 1653.00	493	-0.1980	7.5840	111 291
11SEP90:08:33 TESTING	12	200.000	91.250	2497	865	1689	2508	3225	5020 1536.00	468	-0.1640	7.5430	102 270
11SEP90:08:35 TESTING	12	202.500	91.250	2582	907	1832	2599	3266	5926 1414.00	436	-0.2330	7.4640	89 255
11SEP90:08:37 TESTING	12	205.000	91.250	2649	1102	1856	2681	3294	7108 1438.00	437	-0.3300	7.4550	90 273
11SEP90:08:38 TESTING	12	207.500	91.250	2724	1153	1999	2751	3337	4975 1338.00	418	-0.0470	7.3990	83 256
11SEP90:09:10 TESTING	13	185.000	91.250	2932	986	1862	2974	3829	5360 1967.00	602	-0.2950	7.7740	85 301
11SEP90:09:11 TESTING	13	187.500	91.250	2701	916	1768	2717	3451	16051 1683.00	566	1.2560	7.6490	87 257
11SEP90:09:14 TESTING	13	190.000	91.250	2377	789	1560	2418	3018	3714 1458.00	436	-0.4930	7.4520	81 212
11SEP90:09:16 TESTING	13	192.500	91.250	2398	735	1690	2442	2955	5349 1265.00	389	-0.4340	7.3440	67 208
11SEP90:09:19 TESTING	13	195.000	91.250	2394	1035	1748	2427	2933	3851 1185.00	361	-0.3250	7.2760	79 234
11SEP90:09:20 TESTING	13	197.500	91.250	2400	950	1726	2422	2974	4216 1248.00	379	-0.3190	7.3300	94 280
11SEP90:09:24 TESTING	13	200.000	91.250	2452	949	1772	2478	3003	3973 1231.00	382	-0.2200	7.3190	82 247
11SEP90:09:25 TESTING	13	202.500	91.250	2506	965	1873	2526	3062	4937 1189.00	362	-0.2580	7.2820	77 236
11SEP90:09:27 TESTING	13	205.000	91.250	2564	1133	1918	2590	3084	5232 1166.00	355	-0.4050	7.2480	76 234
11SEP90:09:28 TESTING	13	207.500	91.250	2922	1275	2216	2936	3534	5484 1318.00	421	0.2890	7.3850	86 262
11SEP90:09:45 TESTING	14	185.000	91.250	2631	933	1825	2679	3229	4487 1404.00	444	-0.3340	7.4550	81 267
11SEP90:09:46 TESTING	14	187.500	91.250	2513	923	1788	2544	3098	5350 1310.00	414	-0.0690	7.3880	70 209
11SEP90:09:48 TESTING	14	190.000	91.250	2600	882	1776	2650	3236	4339 1460.00	440	-0.4660	7.4600	84 224
11SEP90:09:49 TESTING	14	192.500	91.250	2545	714	1846	2582	3115	5349 1269.00	387	-0.4300	7.3430	66 201
11SEP90:09:51 TESTING	14	195.000	91.250	2544	1111	1889	2577	3099	4015 1210.00	368	-0.3490	7.2930	77 238
11SEP90:09:52 TESTING	14	197.500	91.250	2531	918	1826	2556	3118	4352 1292.00	394	-0.4210	7.3590	88 263
11SEP90:09:53 TESTING	14	200.000	91.250	2577	989	1877	2604	3142	5298 1265.00	394	-0.1000	7.3410	82 257
11SEP90:10:38 TESTING	10	185.000	91.250	2876	1082	1999	2896	3708	5017 1709.00	524	0.2070	7.6230	99 293
11SEP90:10:39 TESTING	10	187.500	91.250	2716	1009	1973	2754	3314	5349 1341.00	416	-0.3550	7.4040	65 215
11SEP90:10:41 TESTING	10	190.000	91.250	2669	939	1901	2739	3295	4265 1394.00	419	-0.4900	7.4080	76 217
11SEP90:10:42 TESTING	10	192.500	91.250	2708	369	1997	2745	3296	5165 1299.00	400	-0.5890	7.3640	70 207
11SEP90:10:44 TESTING	10	195.000	91.250	2704	1201	2038	2742	3261	4336 1223.00	370	-0.3710	7.2970	80 237
11SEP90:10:45 TESTING	10	197.500	91.250	2680	374	1949	2709	3278	5345 1329.00	409	-0.5680	7.3790	91 272
11SEP90:10:47 TESTING	10	200.000	91.250	2717	439	2008	2749	3285	4409 1277.00	393	-0.2960	7.3430	84 258
11SEP90:10:48 TESTING	10	202.500	91.250	2758	1111	2105	2777	3323	4332 1218.00	372	-0.2860	7.2990	78 236
11SEP90:10:50 TESTING	10	205.000	91.250	2789	1281	2150	2814	3290	4434 1140.00	352	-0.4760	7.2360	67 210
11SEP90:10:51 TESTING	10	207.500	91.250	2827	1388	2241	2831	3363	4725 1122.00	350	0.0970	7.2170	61 200
11SEP90:10:12 TESTING	4	185.000	91.250	2951	1376	2218	2900	4064	5351 1846.00	543	1.4410	7.4760	92 306
11SEP90:10:14 TESTING	4	187.500	91.250	2626	960	1881	2660	3231	5350 1350.00	421	-0.1880	7.4150	69 213
11SEP90:10:15 TESTING	4	190.000	91.250	2606	915	1818	2659	3201	4077 1383.00	415	-0.5300	7.3960	77 212
11SEP90:10:16 TESTING	4	192.500	91.250	2628	429	1923	2665	3207	5348 1284.00	393	-0.4830	7.3530	69 207

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PEROS		V_MAX		V_STD		V_SKEW		V_ENTRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- LESS UNIT)	(BRIGHT- LESS UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- LESS UNIT)	(BRIGHT- LESS UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
11SEP90:10:18 TESTING	4	195.000	91.250	2630	1156	1966	2666	3186	4251	1220.00	372	-0.3660	7.3020	79	238						
11SEP90:10:19 TESTING	4	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:33 TESTING	4	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:34 TESTING	4	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:36 TESTING	4	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:37 TESTING	4	192.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:38 TESTING	4	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:39 TESTING	4	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:40 TESTING	4	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:41 TESTING	4	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:42 TESTING	4	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:02:43 TESTING	4	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:48 TESTING	13	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:49 TESTING	13	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:51 TESTING	13	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:52 TESTING	13	192.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:53 TESTING	13	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:53 TESTING	13	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:55 TESTING	13	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:55 TESTING	13	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:56 TESTING	13	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:03:57 TESTING	13	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:40 TESTING	9	185.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:41 TESTING	9	187.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:41 TESTING	9	190.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:42 TESTING	9	192.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:43 TESTING	9	195.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:44 TESTING	9	197.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:45 TESTING	9	200.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:46 TESTING	9	202.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:46 TESTING	9	205.000	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:04:47 TESTING	9	207.500	91.250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12SEP90:06:15 TESTING	10	185.000	91.000	45	17	31	45	64	92	33.00	11	0.9960	3.7010	2	5						
12SEP90:06:19 TESTING	10	187.500	91.000	63	25	45	64	84	167	39.00	14	1.5680	3.9130	3	7						
12SEP90:06:22 TESTING	10	190.000	91.000	79	30	54	81	101	138	47.00	14	-0.3720	4.0210	3	6						
12SEP90:06:24 TESTING	10	192.500	91.000	110	15	84	112	132	294	48.00	15	-0.5400	4.0770	3	7						
12SEP90:06:32 TESTING	10	195.000	91.000	162	16	122	161	212	393	90.00	27	0.3910	4.7010	7	18						

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN		V_MIN		V_MEDIAN		V_PEROS		V_MAX		V_STD		V_SKEW		V_ENTRO		V_CN190	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- LESS UNIT)	(BRIGHT- LESS UNIT)	(BRIGHT- LESS UNIT)	(BRIGHT- LESS UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
12SEP00:06:33 TESTING	10	197.500	91.000	232	23	143	229	337	628	194.00	59	0.3660	5.4650	17	38						
12SEP00:06:33 TESTING	10	200.000	91.000	330	28	157	335	496	961	339.00	104	-0.0090	6.0130	26	61						
12SEP00:06:35 TESTING	10	202.500	91.000	408	37	193	414	596	1821	403.00	121	0.0780	6.1680	32	75						
12SEP00:04:36 TESTING	10	205.000	91.000	482	42	287	489	670	1671	383.00	121	-0.0780	6.1880	28	80						
13SEP00:02:00 BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	190.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	192.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:02:00 BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	190.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	192.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:04:00 BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

TIME PURPOSE	CONF IG (Degrees)	AZIMUTH	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PEROS		V_MAX		V_STD		V_SKEW		V_ENTRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(DINEN- SION- LESS UNIT)	(DINEN- SION- LESS UNIT)	(DINEN- SION- LESS UNIT)	(DINEN- SION- LESS UNIT)
13SEP00:06:00 BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	190.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	192.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	195.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	197.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	200.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	202.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:06:00 BASELINE	-	235.333	92.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
13SEP00:08:00 BASELINE	-	157.000	91.333	2159	265	1477	2165	2799	3617	1322.00	391	-0.2100	7.3610	61	190						
13SEP00:08:00 BASELINE	-	159.500	91.333	2164	252	1583	2141	2816	3597	1233.00	378	-0.0180	7.3240	61	186						
13SEP00:08:00 BASELINE	-	162.000	91.333	2151	251	1545	2133	2841	3754	1296.00	399	0.0360	7.3810	71	238						
13SEP00:08:00 BASELINE	-	164.500	91.333	2200	270	1588	2197	2870	4091	1282.00	398	-0.0970	7.3810	71	195						
13SEP00:08:00 BASELINE	-	167.000	91.333	2209	287	1565	2198	2881	4302	1316.00	399	-0.0990	7.3810	80	201						
13SEP00:08:00 BASELINE	-	169.500	91.333	1876	750	1183	1892	2504	4261	1321.00	392	-0.1230	7.3700	81	216						
13SEP00:08:00 BASELINE	-	172.000	91.333	1898	606	1295	1887	2555	3359	1260.00	383	0.0080	7.3510	68	216						
13SEP00:08:00 BASELINE	-	190.000	91.333	2312	604	1509	2370	2881	4040	1372.00	422	-0.7590	7.3920	82	226						
13SEP00:08:00 BASELINE	-	192.500	91.333	2332	594	1605	2371	2913	7628	1308.00	402	-0.3000	7.3790	69	231						
13SEP00:08:00 BASELINE	-	195.000	91.333	2353	988	1659	2391	2913	4040	1254.00	381	-0.3490	7.3270	87	259						
13SEP00:08:00 BASELINE	-	197.500	91.333	2458	980	1709	2489	3055	4668	1346.00	405	-0.4210	7.3860	98	277						
13SEP00:08:00 BASELINE	-	200.000	91.333	2497	997	1771	2528	3082	5952	1311.00	402	-0.2450	7.3770	92	261						
13SEP00:08:00 BASELINE	-	202.500	91.333	2562	946	1868	2580	3175	5843	1307.00	405	-0.0300	7.3860	91	251						
13SEP00:10:00 BASELINE	-	235.333	92.333	3098	447	2048	2982	4084	6617	2036.00	604	0.3860	7.7750	132	383						
13SEP00:10:00 BASELINE	-	157.000	91.333	2696	1369	1985	2699	3334	4215	1349.00	393	-0.1560	7.3720	65	202						
13SEP00:10:00 BASELINE	-	159.500	91.333	2717	1137	2068	2703	3382	4441	1316.00	394	-0.0570	7.3770	66	193						
13SEP00:10:00 BASELINE	-	162.000	91.333	2614	1005	1920	2610	3306	4640	1386.00	421	-0.1190	7.4430	69	239						
13SEP00:10:00 BASELINE	-	164.500	91.333	2667	1116	2002	2677	3317	4158	1315.00	412	-0.2180	7.4190	67	192						
13SEP00:10:00 BASELINE	-	167.000	91.333	2685	1084	2021	2685	3343	4835	1322.00	401	-0.0560	7.4000	75	191						
13SEP00:10:00 BASELINE	-	169.500	91.333	2705	1113	1914	2727	3417	4650	1503.00	459	-0.2470	7.5290	85	239						
13SEP00:10:00 BASELINE	-	172.000	91.333	2789	917	2085	2774	3504	5082	1419.00	452	-0.0010	7.5020	68	241						
13SEP00:10:00 BASELINE	-	190.000	91.333	3065	981	2064	3131	3798	5211	1734.00	526	-0.4560	7.6250	90	261						
13SEP00:10:00 BASELINE	-	192.500	91.333	3031	850	2206	3066	3722	6372	1516.00	461	-0.3630	7.5200	80	247						
13SEP00:10:00 BASELINE	-	195.000	91.333	3038	1304	2249	3073	3719	5115	1470.00	450	-0.2460	7.4940	101	290						
13SEP00:10:00 BASELINE	-	197.500	91.333	3010	1147	2151	3044	3723	5002	1572.00	477	-0.3470	7.5500	114	325						
13SEP00:10:00 BASELINE	-	200.000	91.333	2984	1173	2167	3015	3662	5120	1495.00	460	-0.1770	7.5020	99	306						
13SEP00:10:00 BASELINE	-	202.500	91.333	3032	1211	2284	3041	3736	5338	1452.00	449	0.1020	7.4760	91	280						
13SEP00:10:00 BASELINE	-	235.333	92.333	2933	1104	2032	2924	3882	6599	1850.00	551	0.3570	7.6830	124	338						



TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PEROS		V_MAX V_RNG90		V_STD		V_SKEW		V_ENTRO		V_CHI90	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(DIMEN- STON- UNIT)	(DIMEN- STON- UNIT)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
-	13SEP90:12:00 BASELINE	-	157.000	91.333	3142	1556	2354	3159	3824	3159	3159	3824	3159	5114	1470.00	431	-0.1790	7.4620	74	235			
-	13SEP90:12:00 BASELINE	-	159.500	91.333	3037	1272	2340	3039	3698	3039	3039	3698	3039	4678	1358.00	412	-0.2080	7.4190	70	214			
-	13SEP90:12:00 BASELINE	-	162.000	91.333	3001	1153	2224	3009	3733	3009	3009	3733	3009	6563	1509.00	458	-0.2260	7.5170	70	224			
-	13SEP90:12:00 BASELINE	-	164.500	91.333	3059	1181	2276	3063	3775	3063	3063	3775	3063	6513	1499.00	459	-0.2690	7.5210	65	190			
-	13SEP90:12:00 BASELINE	-	167.000	91.333	3061	1219	2371	3056	3755	3056	3056	3755	3056	5181	1384.00	432	-0.0270	7.4710	72	189			
-	13SEP90:12:00 BASELINE	-	169.500	91.333	3085	1227	2213	3106	3853	3106	3106	3853	3106	5500	1640.00	508	-0.2830	7.6250	86	247			
-	13SEP90:12:00 BASELINE	-	172.000	91.333	3196	1095	2438	3171	3966	3171	3171	3966	3171	5813	1528.00	489	0.0110	7.5690	70	248			
-	13SEP90:12:00 BASELINE	-	190.000	91.333	3388	1139	2352	3411	4380	3411	3411	4380	3411	5936	2028.00	593	-0.0640	7.7720	90	274			
-	13SEP90:12:00 BASELINE	-	192.500	91.333	3360	945	2447	3376	4246	3376	3376	4246	3376	5496	1799.00	533	-0.1630	7.6710	87	267			
-	13SEP90:12:00 BASELINE	-	195.000	91.333	3364	1403	2467	3382	4229	3382	3382	4229	3382	5930	1762.00	530	-0.1130	7.6660	107	304			
-	13SEP90:12:00 BASELINE	-	197.500	91.333	3314	1299	2355	3337	4210	3337	3337	4210	3337	5481	1855.00	545	-0.2040	7.6910	117	341			
-	13SEP90:12:00 BASELINE	-	200.000	91.333	3352	1350	2417	3373	4269	3373	3373	4269	3373	5889	1852.00	545	-0.0400	7.6860	108	327			
-	13SEP90:12:00 BASELINE	-	202.500	91.333	3437	1362	2542	3410	4469	3410	3410	4469	3410	6015	1927.00	563	0.2890	7.7050	98	295			
-	13SEP90:12:00 BASELINE	-	235.333	92.333	2814	1143	1941	2817	3648	2817	2817	3648	2817	6172	1707.00	514	0.2140	7.6240	105	306			
-	13SEP90:14:00 BASELINE	-	157.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	159.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	162.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	164.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	167.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	169.500	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	172.000	91.333	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
-	13SEP90:14:00 BASELINE	-	190.000	91.333	3154	1147	2243	3165	4081	3165	3165	4081	3165	5055	1838.00	531	-0.0310	7.6650	82	240			
-	13SEP90:14:00 BASELINE	-	192.500	91.333	3100	962	2209	3109	3991	3109	3109	3991	3109	5272	1782.00	524	-0.0770	7.6550	80	259			
-	13SEP90:14:00 BASELINE	-	195.000	91.333	3354	1244	2334	3384	4301	3384	3384	4301	3384	5675	1967.00	604	-0.1670	7.7890	99	303			
-	13SEP90:14:00 BASELINE	-	197.500	91.333	3095	835	2186	3117	3981	3117	3117	3981	3117	4838	1795.00	519	-0.0900	7.6360	96	297			
-	13SEP90:14:00 BASELINE	-	200.000	91.333	3107	1300	2216	3124	4017	3124	3124	4017	3124	5269	1801.00	525	0.0380	7.6460	97	300			
-	13SEP90:14:00 BASELINE	-	202.500	91.333	3220	1376	2373	3180	4259	3180	3180	4259	3180	4912	1886.00	545	0.3620	7.6610	90	274			
-	13SEP90:14:00 BASELINE	-	235.333	92.333	2484	441	1688	2493	3242	2493	2493	3242	2493	8184	1554.00	478	0.2370	7.5590	94	281			
-	13SEP90:16:00 BASELINE	-	157.000	91.333	2506	858	1680	2533	3200	2533	2533	3200	2533	4354	1520.00	451	-0.3080	7.5080	93	264			
-	13SEP90:16:00 BASELINE	-	159.500	91.333	2451	943	1766	2451	3138	2451	2451	3138	2451	4486	1372.00	418	-0.0610	7.4420	92	233			
-	13SEP90:16:00 BASELINE	-	162.000	91.333	2397	863	1685	2412	3055	2412	2412	3055	2412	5031	1370.00	416	-0.1620	7.4320	84	227			
-	13SEP90:16:00 BASELINE	-	164.500	91.333	2355	873	1678	2353	2988	2353	2353	2988	2353	4470	1310.00	393	-0.1470	7.3770	65	194			
-	13SEP90:16:00 BASELINE	-	167.000	91.333	2296	796	1597	2327	2894	2327	2327	2894	2327	4657	1297.00	398	-0.2060	7.3800	84	210			
-	13SEP90:16:00 BASELINE	-	169.500	91.333	2289	825	1514	2308	2955	2308	2308	2955	2308	5894	1441.00	429	-0.2120	7.4560	86	241			
-	13SEP90:16:00 BASELINE	-	172.000	91.333	2288	693	1600	2295	2958	2295	2295	2958	2295	4165	1358.00	421	-0.0390	7.4460	72	216			
-	13SEP90:16:00 BASELINE	-	190.000	91.333	2427	877	1709	2431	3117	2431	2431	3117	2431	3923	1408.00	428	-0.1140	7.4560	79	196			
-	13SEP90:16:00 BASELINE	-	192.500	91.333	2431	734	1694	2443	3134	2443	2443	3134	2443	4120	1440.00	432	-0.1350	7.4680	73	229			

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH	ELEV	V_MEAN		V_MIN		V_PEROS		V_MEDIAN		V_PER95		V_MAX		V_STD		V_SKEW		V_ENTRO	
				(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)	(BRIGHT- MESS VALUE)
13SEP90:16:00 BASELINE	.	195.000	91.333	2438	953	1754	2439	3148	4136	1394.00	410	-0.0180	7.4150	78	222						
13SEP90:16:00 BASELINE	.	197.500	91.333	2375	896	1656	2368	3115	4006	1459.00	423	0.0490	7.4400	79	235						
13SEP90:16:00 BASELINE	.	200.000	91.333	2394	1015	1687	2396	3166	3975	1479.00	428	0.1710	7.4450	87	239						
13SEP90:16:00 BASELINE	.	202.500	91.333	2443	1123	1775	2414	3241	3795	1466.00	428	0.3360	7.4400	84	219						
13SEP90:16:00 BASELINE	.	235.333	92.333	2040	1017	1487	2028	2671	3284	1184.00	364	0.2270	7.2890	81	211						
13SEP90:18:00 BASELINE	.	157.000	91.333	1499	488	927	1523	1995	2780	1068.00	322	-0.3040	7.1700	65	190						
13SEP90:18:00 BASELINE	.	159.500	91.333	1371	467	863	1372	1872	2598	1009.00	302	0.0120	7.1180	66	183						
13SEP90:18:00 BASELINE	.	162.000	91.333	1253	448	688	1266	1733	2338	1045.00	296	-0.1350	7.0700	61	174						
13SEP90:18:00 BASELINE	.	164.500	91.333	1171	371	663	1168	1674	2200	1011.00	294	0.0690	7.0660	51	152						
13SEP90:18:00 BASELINE	.	167.000	91.333	1100	413	562	1127	1592	3069	1020.00	301	-0.0580	7.0550	69	176						
13SEP90:18:00 BASELINE	.	169.500	91.333	1072	398	625	1078	1512	2884	887.00	266	0.0100	6.9740	60	165						
13SEP90:18:00 BASELINE	.	172.000	91.333	1013	338	538	1026	1441	2026	903.00	263	-0.0700	6.9390	48	143						
13SEP90:18:00 BASELINE	.	190.000	91.333	1072	399	722	1075	1416	1893	694.00	214	-0.0200	6.7670	52	113						
13SEP90:18:00 BASELINE	.	192.500	91.333	1031	358	689	1041	1350	1695	661.00	205	-0.1720	6.7170	46	113						
13SEP90:18:00 BASELINE	.	195.000	91.333	975	380	671	977	1278	1726	607.00	184	-0.0600	6.6210	40	106						
13SEP90:18:00 BASELINE	.	197.500	91.333	905	341	618	897	1209	1755	591.00	179	0.0530	6.5930	39	102						
13SEP90:18:00 BASELINE	.	200.000	91.333	850	351	572	848	1143	1384	571.00	171	0.0680	6.5490	40	99						
13SEP90:18:00 BASELINE	.	202.500	91.333	810	344	557	805	1082	2345	525.00	163	0.3670	6.4790	39	93						
13SEP90:18:00 BASELINE	.	235.333	92.333	565	302	403	544	803	1074	400.00	122	0.7390	6.1410	30	68						
13SEP90:20:00 BASELINE	.	157.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	159.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	190.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	192.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	195.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	197.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	200.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	202.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:20:00 BASELINE	.	235.333	92.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:22:00 BASELINE	.	157.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:22:00 BASELINE	.	159.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:22:00 BASELINE	.	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.						
13SEP90:22:00 BASELINE	.	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.						

TIME PURPOSE	CONFIG (Degrees)	AZIMUTH (Degrees)	ELEV (Degrees)	V_MEAN (BRIGHT- MESS VALUE)	V_MIN (BRIGHT- MESS VALUE)	V_PEROS (BRIGHT- MESS VALUE)	V_MEDIAN (BRIGHT- MESS VALUE)	V_PERPS (BRIGHT- MESS VALUE)	V_MAX (BRIGHT- MESS VALUE)	V_BMG90 (BRIGHT- MESS VALUE)	V_STD (BRIGHT- MESS VALUE)	V_SKEW (OTHER- SION- LESS UNIT)	V_ENTRO (OTHER- SION- LESS UNIT)	V_CN175 (BRIGHT- MESS VALUE)	V_CN190 (BRIGHT- MESS VALUE)
13SEP90:22:00 BASELINE	.	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	190.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	192.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	195.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	197.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	200.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	202.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
13SEP90:22:00 BASELINE	.	235.333	92.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	157.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	159.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	162.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	164.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	167.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	169.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	172.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	190.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	192.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	195.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	197.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	200.000	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	202.500	91.333	.	.	.	.	.	.	.	.	.	.	.	.
14SEP90:00:00 BASELINE	.	235.333	92.333	.	.	.	.	.	.	.	.	.	.	.	.

APPENDIX D: THERMAL TARGET METRICS

WCS_NAME	TIME	TGT_AZTH (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	THOT_GIP (DIMEN- SION- LESS UNIT)	T_CONTR (Deg. C)	TCOM_GIP (DIMEN- SION- LESS UNIT)	T_TIR2 (DIMEN- SION- LESS UNIT)	T_POT (# OF PIXELS)
0606R101	06SEP90:06:59	161.027	91.218	HULK	3	RR	1825	26.26	0.00	25.74	27.16	0.9755	0.26	0.9621	1.98	55
0606R102	06SEP90:07:01	163.638	91.380	APC	15	RR	1731	26.80	0.03	26.15	28.74	1.0000	0.50	0.9998	3.93	55
0606R102	06SEP90:07:01	165.343	91.173	HULK	4	RR	1924	26.94	0.00	26.42	27.67	0.9534	0.15	0.9158	0.24	55
0606R104	06SEP90:07:04	169.878	91.425	APC	16	FF	1737	27.43	0.00	26.94	28.13	0.9940	0.30	0.9647	1.33	55
0606R104	06SEP90:07:04	170.496	92.018	HULK	1	RB	1260	27.76	0.00	26.89	28.19	0.9952	0.24	0.9396	0.51	105
0606R104	06SEP90:07:04	168.328	91.321	HULK	2	FF	1720	27.27	0.00	26.86	27.86	0.8817	0.12	0.8217	0.10	55
0606R104	06SEP90:07:04	170.279	90.784	HULK	2	RB	2293	27.81	0.00	27.43	28.29	0.9965	0.30	0.9647	1.97	36
0606R104	06SEP90:07:04	170.538	91.424	TANK	1	RR	1735	28.02	0.06	26.84	29.74	1.0000	0.83	1.0000	7.48	55
0606R104	06SEP90:07:04	169.310	91.425	TRUCK	11	RF	1739	27.81	0.06	26.94	29.68	0.9996	0.72	1.0000	5.89	55
0606R106	06SEP90:07:10	175.084	91.473	TANK	5	RR	1743	28.94	0.06	27.70	30.58	1.0000	0.90	1.0000	2.81	55
0606R107	06SEP90:07:11	175.760	90.754	HULK	6	LL	3457	28.29	0.00	28.13	28.56	0.5857	0.18	0.9203	3.05	21
0606R107	06SEP90:07:11	178.076	90.698	HULK	7	RR	3955	28.35	0.00	28.24	28.40	0.4228	-0.18	0.1884	1.29	10
0611D306	06SEP90:11:00	197.744	91.279	APC	16	FR	2600	39.20	0.11	37.90	40.78	0.9868	1.81	0.9852	0.92	21
0611D306	06SEP90:11:00	196.441	91.127	TANK	1	RR	2600	36.79	0.00	36.08	37.29	0.8229	0.00	0.8223	0.00	21
0611D308	06SEP90:11:06	201.484	91.093	TANK	1	RR	2600	38.60	0.11	36.99	39.89	0.9996	1.02	0.9577	0.58	21
0708R201	07SEP90:08:18	161.027	91.218	HULK	3	RR	1825	33.12	0.00	32.34	33.80	0.8831	-0.06	0.4350	0.00	55
0708R202	07SEP90:08:19	165.343	91.173	HULK	4	RR	1924	33.49	0.00	32.76	34.05	0.9218	-0.06	0.4481	0.04	55
0708R203	07SEP90:08:20	167.736	90.817	APC	16	FR	2242	32.86	0.00	32.19	34.26	0.9112	-0.11	0.3479	0.04	36
0708R203	07SEP90:08:20	166.824	90.722	TRUCK	11	RF	2211	34.11	0.11	31.77	37.41	1.0000	1.01	0.9892	1.02	36
0708R204	07SEP90:08:21	170.496	92.018	HULK	1	RB	1260	33.59	0.06	32.34	35.64	0.9989	-0.06	0.4393	0.03	105
0708R204	07SEP90:08:21	168.328	91.321	HULK	2	FF	1720	33.80	0.00	33.33	34.00	0.8173	-0.06	0.4393	0.04	55
0708R204	07SEP90:08:21	170.279	90.784	HULK	5	RB	2293	33.69	0.06	32.55	34.57	0.9666	0.40	0.9269	0.32	36
0708R204	07SEP90:08:21	168.540	90.762	TANK	3	RR	2255	34.26	0.06	32.92	36.51	0.9998	1.07	0.9962	3.67	36
0708R204	07SEP90:08:21	169.718	90.780	TANK	5	RF	2281	34.26	0.06	33.12	37.01	1.0000	0.96	0.9912	2.67	36
0708R207	07SEP90:08:24	175.760	90.754	HULK	6	LL	3457	33.43	0.00	32.97	33.95	0.7087	0.28	0.9149	0.10	21
0708R207	07SEP90:08:24	178.076	90.698	HULK	7	RR	3955	34.00	0.00	33.59	34.26	0.8638	0.00	0.5992	0.00	10
0710R201	07SEP90:10:35	161.027	91.218	HULK	3	RR	1825	42.10	0.11	38.20	45.05	0.9928	-0.54	0.1890	0.20	55
0710R202	07SEP90:10:36	165.343	91.173	HULK	4	RR	1924	41.86	0.11	39.35	43.99	0.9444	-1.19	0.0568	0.42	55
0710R203	07SEP90:10:37	167.718	90.813	APC	16	FR	2242	41.07	0.00	40.09	42.00	0.7162	-0.43	0.3061	0.48	36
0710R203	07SEP90:10:37	166.847	90.724	TRUCK	11	RF	2211	41.81	0.05	40.24	43.31	0.8920	0.16	0.6339	0.02	36
0710R204	07SEP90:10:38	170.496	92.018	HULK	1	RB	1260	39.94	0.05	37.50	42.73	0.8569	0.05	0.5882	0.00	105
0710R204	07SEP90:10:38	168.328	91.321	HULK	2	FF	1720	43.22	0.11	39.84	45.57	0.9945	-0.22	0.4324	0.04	55
0710R204	07SEP90:10:38	170.279	90.784	HULK	5	RB	2293	41.27	0.05	38.45	42.83	0.8645	-0.43	0.3080	0.34	36
0710R204	07SEP90:10:38	168.565	90.768	TANK	3	RR	2255	41.47	0.05	40.33	43.36	0.9058	0.38	0.7571	0.17	36
0710R204	07SEP90:10:38	169.737	90.773	TANK	5	RF	2281	41.81	0.05	40.53	43.56	0.9192	-0.22	0.4324	0.07	36
0710R206	07SEP90:10:40	175.599	90.996	APC	15	RB	2419	42.05	0.05	39.05	43.41	0.9309	1.08	0.9312	0.47	36
0710R207	07SEP90:10:41	175.760	90.754	HULK	6	LL	3457	41.32	0.05	40.58	42.29	0.8204	-0.16	0.4376	0.04	21

UES_NAME	TIME	TGT_AZIM (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	THOT_GTP (DIMEN- SION- LESS UNIT)	T_CONTR (Deg. C)	TCN_GTP (DIMEN- SION- LESS UNIT)	T_TIR2 (DIMEN- SION- LESS UNIT)	T_POT (# OF PIXELS)
0710R207	07SEP00:10:41	178.076	90.698	HULK	7	RR	3955	42.00	0.00	41.12	42.49	0.8369	0.33	0.7008	0.26	10
0712S701	07SEP00:12:00	235.044	92.365	APC	15	RF	1197	45.74	0.32	42.18	50.89	0.8640	0.32	0.6661	0.01	105
0712S701	07SEP00:12:00	235.799	92.275	TANK	5	RR	1269	45.65	0.21	42.37	49.32	0.8233	0.53	0.7361	0.02	105
0712S701	07SEP00:12:00	234.672	92.404	TRUCK	14	RF	1149	43.73	0.32	41.10	49.97	0.8389	0.11	0.5777	0.00	136
0803S701	08SEP00:03:16	235.026	92.399	APC	15	RF	1197	31.47	0.12	29.35	34.89	0.9991	0.70	0.9754	0.41	105
0803S701	08SEP00:03:16	236.009	92.300	TANK	5	RR	1290	32.31	0.12	30.10	34.97	0.9993	1.05	0.9999	3.16	105
0803S701	08SEP00:03:16	234.491	92.744	TRUCK	14	RF	976	31.15	0.24	28.61	38.43	1.0000	0.35	0.8754	0.10	171
0803S702	08SEP00:03:21	235.026	92.399	APC	15	RF	1197	31.37	0.12	29.25	35.20	0.9995	0.82	0.9915	0.52	105
0803S702	08SEP00:03:21	236.009	92.300	TANK	5	RR	1290	32.20	0.12	30.10	34.89	0.9993	0.94	0.9967	2.73	105
0803S702	08SEP00:03:21	234.491	92.744	TRUCK	14	RF	976	30.94	0.24	28.50	37.53	1.0000	0.23	0.8175	0.05	171
0803S703	08SEP00:03:26	235.026	92.399	APC	15	RF	1197	31.25	0.06	29.08	35.24	0.9997	0.80	0.9893	0.54	105
0803S703	08SEP00:03:26	236.009	92.300	TANK	5	RR	1290	32.04	0.06	30.04	34.58	0.9995	0.80	0.9893	2.55	105
0803S703	08SEP00:03:26	234.491	92.744	TRUCK	14	RF	976	30.41	0.11	28.39	36.72	1.0000	-0.23	0.2418	0.06	171
0803S704	08SEP00:03:38	235.026	92.399	APC	15	RF	1197	30.82	0.06	28.69	35.02	0.9999	0.76	0.9852	0.44	105
0803S704	08SEP00:03:38	236.009	92.300	TANK	5	RR	1290	31.50	0.06	29.49	33.84	0.9970	0.87	0.9945	2.44	105
0803S704	08SEP00:03:38	234.491	92.744	TRUCK	14	RF	976	30.24	0.12	27.99	35.84	1.0000	-0.06	0.4569	0.00	171
0803S705	08SEP00:03:56	235.026	92.399	APC	15	RF	1197	30.76	0.06	28.59	34.72	0.9998	0.81	0.9929	0.64	105
0803S705	08SEP00:03:56	236.009	92.300	TANK	5	RR	1290	31.34	0.06	29.39	33.58	0.9683	0.76	0.9866	1.70	105
0803S705	08SEP00:03:56	234.491	92.744	TRUCK	14	RF	976	30.13	0.12	27.99	35.74	1.0000	-0.06	0.4647	0.00	171
0803S706	08SEP00:04:09	235.026	92.399	APC	15	RF	1197	30.76	0.06	28.26	34.77	0.9999	0.93	0.9954	0.73	105
0803S706	08SEP00:04:09	236.009	92.300	TANK	5	RR	1290	31.08	0.06	29.28	33.33	0.9667	0.64	0.9704	1.48	105
0803S706	08SEP00:04:09	234.491	92.744	TRUCK	14	RF	976	29.49	0.12	27.62	35.13	1.0000	-0.47	0.1032	0.18	171
0804S801	08SEP00:04:53	234.892	92.338	APC	15	FF	1199	30.08	0.06	28.37	33.22	0.9999	0.47	0.9316	0.26	105
0804S801	08SEP00:04:53	236.154	92.243	TANK	5	RF	1290	30.39	0.06	28.48	33.17	0.9997	0.59	0.9608	1.32	105
0804S801	08SEP00:04:53	234.593	92.688	TRUCK	11	RR	976	29.76	0.06	27.24	34.30	1.0000	0.53	0.9478	0.26	171
0804S802	08SEP00:05:04	234.892	92.338	APC	15	FF	1199	29.86	0.06	28.26	33.43	0.9999	0.35	0.8748	0.13	105
0804S802	08SEP00:05:04	236.154	92.243	TANK	5	RF	1290	30.45	0.06	28.31	33.01	0.9968	0.47	0.9266	0.66	105
0804S802	08SEP00:05:04	234.593	92.688	TRUCK	11	RR	976	29.81	0.06	27.24	34.20	1.0000	0.65	0.9728	0.41	171
0804S803	08SEP00:05:13	234.892	92.338	APC	15	FF	1199	30.07	0.06	28.36	33.88	0.9999	0.41	0.8966	0.23	105
0804S803	08SEP00:05:13	236.154	92.243	TANK	5	RF	1290	30.54	0.06	28.47	33.26	0.9933	0.69	0.9720	1.38	105
0804S803	08SEP00:05:13	234.593	92.688	TRUCK	11	RR	976	30.07	0.06	27.39	34.55	1.0000	0.52	0.9386	0.22	171
0804S804	08SEP00:05:22	234.892	92.338	APC	15	FF	1199	30.07	0.06	28.52	33.83	0.9999	0.52	0.9455	0.36	105
0804S804	08SEP00:05:22	236.154	92.243	TANK	5	RF	1290	30.54	0.06	28.31	33.16	0.9860	0.58	0.9607	0.77	105
0804S804	08SEP00:05:22	234.593	92.688	TRUCK	11	RR	976	29.86	0.06	27.34	34.40	1.0000	0.41	0.9010	0.19	171
0804S805	08SEP00:05:43	234.892	92.338	APC	15	FF	1199	29.11	0.06	27.61	32.38	0.9930	0.23	0.8185	0.08	105
0804S805	08SEP00:05:43	236.154	92.243	TANK	5	RF	1290	29.64	0.06	27.66	31.70	0.9488	0.58	0.9724	0.79	105
0804S805	08SEP00:05:43	234.593	92.688	TRUCK	11	RR	976	29.16	0.06	26.63	34.40	1.0000	0.64	0.9809	0.43	171

WFS_NAME	TIME	TGT_AZTH (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	THOT_GIP (DIMEN- SION- LESS UNIT)	T_CONTR (Deg. C)	TCOR_GIP (DIMEN- SION- LESS UNIT)	T_TIR2 (DIMEN- SION- LESS UNIT)	T_POI (# OF PIXELS)
0806S405	08SEP90:06:49	195.036	91.139	TANK	5	RR	2812	30.61	0.06	29.17	32.29	0.9954	1.27	0.9992	5.19	21
0806S405	08SEP90:06:49	194.298	91.131	TRUCK	11	RR	2862	30.40	0.00	29.92	31.03	0.8725	0.29	0.8882	0.51	21
0806S408	08SEP90:06:53	201.419	91.096	APC	15	RF	3240	29.97	0.06	29.17	31.03	0.8921	0.41	0.9792	0.67	21
0806S408	08SEP90:06:53	202.294	91.096	TRUCK	30	RR	3254	30.13	0.00	29.49	30.76	0.8530	0.52	0.9925	1.58	21
0807S505	08SEP90:07:33	195.038	91.130	TANK	5	FF	2808	32.05	0.06	31.47	32.98	0.9880	0.57	0.9948	2.52	21
0807S505	08SEP90:07:33	194.325	91.129	TRUCK	11	FF	2859	32.25	0.00	31.78	33.35	1.0000	0.29	0.9292	1.33	21
0807S508	08SEP90:07:37	201.427	91.106	APC	15	RR	3241	32.10	0.00	31.58	32.98	1.0000	0.40	0.9916	1.62	21
0807S508	08SEP90:07:37	202.286	91.099	TRUCK	30	FF	3253	32.10	0.00	31.63	32.93	0.9998	0.46	0.9972	3.70	21
0808S605	08SEP90:08:15	196.226	91.146	APC	15	FF	2859	35.44	0.00	34.88	36.30	0.9998	0.68	0.9967	8.73	21
0808S605	08SEP90:08:15	194.322	91.159	TRUCK	30	FF	2857	35.39	0.06	34.72	36.66	1.0000	0.73	0.9983	7.80	21
0808S608	08SEP90:08:18	202.443	91.107	TANK	5	FF	3260	35.18	0.00	34.88	35.55	0.9987	0.45	0.9957	3.24	21
0808S608	08SEP90:08:18	202.284	91.101	TRUCK	11	RR	3212	35.39	0.06	34.82	36.30	1.0000	0.62	0.9996	6.10	21
0809S902	08SEP90:09:54	192.643	91.003	TANK	3	FF	2862	48.85	0.00	48.66	48.99	0.8529	0.13	0.8082	0.20	21
0809S903	08SEP90:09:55	194.324	91.137	TANK	5	FF	3653	48.80	0.00	48.38	49.20	0.7279	-0.13	0.2237	0.19	10
0809S906	08SEP90:08:58	202.094	91.104	TANK	1	FF	3241	49.67	0.00	49.39	49.99	0.3391	-0.17	0.0892	0.29	21
0809S907	08SEP90:08:59	204.038	91.075	TANK	0	FF	3506	50.09	0.00	49.90	50.29	0.2222	-0.17	0.0834	0.35	21
1003R101	10SEP90:03:22	161.027	91.218	HULK	3	RR	1825	30.94	0.06	29.51	33.76	0.9915	0.86	0.9855	2.83	55
1003R102	10SEP90:03:24	163.638	91.380	APC	15	RR	1731	30.31	0.06	28.98	33.91	0.9736	0.69	0.9778	0.98	55
1003R102	10SEP90:03:24	165.343	91.173	HULK	4	RR	1924	31.47	0.06	29.89	33.81	0.9724	0.69	0.9778	0.83	55
1003R104	10SEP90:03:26	170.378	91.425	APC	16	FF	1737	30.47	0.06	29.14	33.60	0.9996	0.63	0.9453	0.50	55
1003R104	10SEP90:03:26	170.496	92.018	HULK	1	RR	1260	30.94	0.06	28.77	33.19	0.9969	0.63	0.9453	0.64	105
1003R104	10SEP90:03:26	168.328	91.321	HULK	2	FF	1720	30.15	0.06	28.71	32.78	0.9862	0.63	0.9453	1.01	55
1003R104	10SEP90:03:26	170.279	90.784	HULK	5	RR	2293	32.15	0.06	31.21	33.91	1.0000	0.74	0.9648	2.42	36
1003R104	10SEP90:03:26	169.810	91.425	TRUCK	11	RF	1739	29.83	0.06	28.50	31.31	0.6989	-0.17	0.2939	0.02	55
1003R105	10SEP90:03:27	171.051	91.424	TANK	3	RR	1735	30.73	0.11	29.19	34.27	1.0000	0.34	0.8296	0.05	55
1003R107	10SEP90:03:30	175.760	90.754	HULK	6	LL	3457	32.72	0.00	32.25	33.35	0.8588	0.40	0.8704	0.79	21
1003R107	10SEP90:03:30	178.076	90.698	HULK	7	RR	3955	33.29	0.00	32.67	33.81	0.8976	0.52	0.9322	0.66	10
1003R107	10SEP90:03:30	177.584	91.473	TANK	5	RR	1743	31.15	0.11	29.14	34.33	0.9533	1.65	1.0000	2.45	55
1004R201	10SEP90:04:27	161.027	91.218	HULK	3	RR	1825	29.95	0.06	28.57	32.53	0.9693	0.81	0.9906	2.02	55
1004R202	10SEP90:04:28	165.343	91.173	HULK	4	RR	1924	30.59	0.06	29.00	32.58	0.9657	0.64	0.9699	0.54	55
1004R203	10SEP90:04:29	167.748	90.847	APC	16	RR	2239	30.91	0.06	30.11	32.27	0.9968	0.23	0.7909	0.29	36
1004R203	10SEP90:04:29	166.870	90.752	TRUCK	11	RF	2213	31.64	0.06	30.59	34.90	1.0000	1.04	0.9900	8.25	36
1004R204	10SEP90:04:30	170.496	92.018	HULK	1	RR	1260	30.06	0.06	28.03	31.96	0.9827	0.58	0.9365	0.59	105
1004R204	10SEP90:04:30	168.328	91.321	HULK	2	FF	1720	29.37	0.06	27.82	31.75	0.9589	0.52	0.9202	0.59	55
1004R204	10SEP90:04:30	170.279	90.784	HULK	5	RR	2293	31.54	0.06	30.70	33.31	0.9987	0.69	0.9571	2.88	36
1004R204	10SEP90:04:30	168.568	90.808	TANK	3	RF	2254	31.90	0.06	30.38	34.03	0.9997	1.16	0.9904	5.35	36
1004R204	10SEP90:04:30	169.727	90.813	TANK	5	RF	2282	32.01	0.06	30.59	34.19	1.0000	1.44	0.9973	12.18	36

WES_NAME	TIME	TGT_AZTH (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (DEG. C)	T_STD (DEG. C)	T_MIN (DEG. C)	T_MAX (DEG. C)	THOT_GIP (DIMEN- SION- LESS UNIT)	T_CONTR (DEG. C)	TCOM_GIP (DIMEN- SION- LESS UNIT)	T_IIR2 (DIMEN- SION- LESS UNIT)	T_POT (# OF PIXELS)
1004R207	10SEP90:04:33	175.760	90.754	HULK	6	LL	3457	32.11	0.00	31.54	32.64	0.8630	0.29	0.8062	0.54	21
1004R207	10SEP90:04:33	178.076	90.698	HULK	7	RR	3955	32.84	0.00	32.43	33.41	0.9295	0.52	0.9212	1.06	10
1005R301	10SEP90:05:46	161.027	91.218	HULK	3	RR	1825	29.52	0.06	28.02	31.89	0.9367	0.75	0.9931	1.92	55
1005R302	10SEP90:05:48	165.343	91.173	HULK	4	RR	1924	30.21	0.12	28.40	32.31	0.9534	0.61	0.9613	0.36	55
1005R304	10SEP90:05:50	168.328	91.321	HULK	2	FF	1720	29.15	0.12	27.64	31.58	0.9147	0.49	0.9026	0.73	55
1005R304	10SEP90:05:50	170.279	90.784	HULK	5	RB	2293	31.58	0.12	30.74	33.14	0.9998	0.73	0.9558	2.49	36
1005R306	10SEP90:05:53	175.733	90.752	TANK	3	RR	3900	32.21	0.00	31.89	32.94	0.8523	0.49	0.9143	1.62	10
1005R307	10SEP90:05:54	176.696	90.641	APC	15	RR	3888	32.41	0.12	31.47	33.45	0.9452	0.24	0.7747	0.07	10
1005R307	10SEP90:05:54	177.912	90.714	APC	16	FF	3895	30.95	0.00	30.74	31.26	0.6996	-0.12	0.4394	0.50	10
1005R307	10SEP90:05:54	175.760	90.754	HULK	6	LL	3457	31.89	0.00	31.26	32.62	0.8627	0.49	0.8972	0.72	21
1005R307	10SEP90:05:54	178.076	90.698	HULK	7	RR	3955	32.62	0.12	31.37	33.56	0.9550	0.61	0.9465	0.50	10
1005R307	10SEP90:05:54	177.321	90.679	TANK	5	RF	3879	33.14	0.12	32.00	33.97	0.9820	0.65	0.9910	0.90	10
1008R101	10SEP90:08:07	161.027	91.218	HULK	3	RR	1825	33.81	0.00	33.29	34.42	0.9030	-0.17	0.2798	1.30	10
1008R102	10SEP90:08:08	163.739	91.351	APC	15	RR	1730	34.99	0.06	34.06	38.08	1.0000	0.96	0.9952	5.83	55
1008R102	10SEP90:08:08	165.343	91.173	HULK	4	RR	1924	33.86	0.00	33.24	34.42	0.8496	-0.34	0.1321	1.46	55
1008R104	10SEP90:08:11	170.496	92.018	HULK	1	RB	1260	33.81	0.06	32.77	36.06	0.9986	-0.06	0.4429	0.01	105
1008R104	10SEP90:08:11	168.328	91.321	HULK	2	FF	1720	34.22	0.00	33.60	34.78	0.9667	0.06	0.6375	0.04	55
1008R104	10SEP90:08:11	170.279	90.784	HULK	5	RB	2293	32.51	0.00	32.09	33.86	0.6090	-0.40	0.0588	0.52	36
1008R104	10SEP90:08:11	170.031	91.389	TRUCK	11	RF	1730	35.40	0.11	33.55	40.02	1.0000	1.53	0.9990	8.96	55
1008R105	10SEP90:08:13	170.782	91.389	APC	16	FF	1730	33.81	0.00	33.24	34.58	0.9475	0.45	0.9555	3.60	55
1008R105	10SEP90:08:13	171.545	91.389	TANK	3	RR	1730	34.27	0.06	32.98	36.16	1.0000	1.13	1.0000	15.79	55
1008R107	10SEP90:08:15	175.760	90.754	HULK	6	LL	3457	32.67	0.06	32.15	33.39	0.7143	-0.23	0.1468	0.10	21
1008R107	10SEP90:08:15	178.076	90.698	HULK	7	RR	3955	32.77	0.00	32.67	32.98	0.3580	-0.28	0.0946	1.66	10
1008R107	10SEP90:08:15	177.019	91.455	TANK	5	RR	1730	34.48	0.06	33.08	36.72	1.0000	1.36	1.0000	24.14	55
1104S104	12SEP90:04:22	191.598	91.185	TANK	0	RR	2639	30.63	0.12	28.93	31.79	0.8002	0.12	0.6216	0.02	21
1104S104	12SEP90:04:22	192.169	91.187	TANK	1	FF	2657	30.21	0.12	28.83	31.16	0.7626	-0.12	0.3953	0.02	21
1104S106	12SEP90:04:25	197.664	91.141	APC	16	RR	2968	30.42	0.06	29.46	31.37	0.8575	0.52	0.9188	0.46	21
1104S106	12SEP90:04:25	197.049	91.141	TRUCK	11	RF	2943	29.67	0.06	28.71	31.37	0.8575	-0.46	0.1693	0.25	21
1104S106	12SEP90:04:25	196.297	91.142	TRUCK	14	RR	2898	29.67	0.00	29.25	30.47	0.6159	-0.86	0.0513	1.73	21
1104S204	11SEP90:04:45	191.619	91.176	TANK	0	RF	2639	30.94	0.12	29.67	31.99	0.7937	0.12	0.6241	0.06	21
1104S204	11SEP90:04:45	192.174	91.175	TANK	1	RR	2658	30.84	0.12	29.67	32.41	0.8271	0.24	0.7434	0.11	21
1104S204	11SEP90:04:45	193.210	91.139	TRUCK	14	FF	2898	30.21	0.12	29.25	31.15	0.7180	-1.09	0.0167	1.84	21
1104S206	11SEP90:04:46	197.674	91.131	APC	16	FF	2968	29.57	0.00	28.50	30.42	0.7815	-0.12	0.4127	0.02	21
1104S206	11SEP90:04:46	197.136	91.139	TRUCK	11	RR	2944	29.35	0.12	28.39	31.05	0.8529	-0.48	0.1725	0.29	21
1104S208	11SEP90:04:48	202.006	91.108	APC	15	RR	3269	29.89	0.12	29.14	31.15	0.8230	-0.36	0.2030	0.24	21
1104S208	11SEP90:04:48	201.511	91.109	TANK	3	RF	3240	30.42	0.12	29.14	31.78	0.8680	0.72	0.9867	0.86	21



WES_NAME	TIME	TGT_AZTH (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	THOT_GIP (DIMEN- SION- LESS UNIT)	T_CONTR (Deg. C)	TCOM_GIP (DIMEN- SION- LESS UNIT)	T_TIR2 (DIMEN- SION- LESS UNIT)	T_POI (# OF PIXELS)
11085804	11SEP90:08:27	192.167	91.179	TANK	3	RR	2721	.	.	.	.	.	.	.	.	.
11085804	11SEP90:08:27	192.923	91.186	TANK	5	FF	2690	.	.	.	.	.	.	.	.	.
11085806	11SEP90:08:31	197.673	91.151	APC	16	RR	2968	.	.	.	.	.	.	.	.	.
11085806	11SEP90:08:31	196.389	91.149	TRUCK	11	RR	2913	.	.	.	.	.	.	.	.	.
11085806	11SEP90:08:31	197.061	91.154	TRUCK	14	RF	2936	.	.	.	.	.	.	.	.	.
11085808	11SEP90:08:35	201.488	91.119	APC	15	RR	3241	.	.	.	.	.	.	.	.	.
11095C04	11SEP90:09:16	192.239	91.186	TANK	3	RF	2720	40.65	0.12	39.46	41.82	0.9979	1.54	0.9981	3.56	21
11095C04	11SEP90:09:16	192.904	91.193	TANK	5	RR	2690	40.84	0.12	39.66	41.82	0.9979	1.43	0.9968	3.89	21
11095C05	11SEP90:09:19	196.209	91.156	TRUCK	11	FF	2902	41.04	0.12	39.26	42.60	1.0000	0.95	0.9528	1.38	21
11095C06	11SEP90:09:20	197.657	91.155	APC	16	FF	2968	40.92	0.00	40.04	41.41	0.9437	0.57	0.8981	0.52	21
11095C06	11SEP90:09:20	196.996	91.155	TRUCK	14	RR	2933	40.53	0.11	39.34	41.51	0.9581	0.46	0.8626	0.19	21
11095C08	11SEP90:09:25	201.473	91.124	APC	15	RR	3240	42.49	0.00	42.15	42.88	1.0000	1.25	0.9998	2.61	21
11095D04	11SEP90:09:49	192.874	91.189	APC	16	RR	2695	42.15	0.11	40.78	43.70	0.9437	0.00	0.6183	0.00	21
11095D05	11SEP90:09:51	194.305	91.156	TANK	3	RR	2862	42.54	0.11	41.66	43.60	0.9172	1.02	0.9392	1.48	21
11095D05	11SEP90:09:51	196.073	91.155	TANK	5	RF	2913	42.73	0.11	41.27	43.60	0.9172	0.68	0.8864	0.57	21
11095D07	11SEP90:09:53	201.043	91.126	TRUCK	14	RR	3211	44.47	0.00	43.99	45.05	0.9941	1.36	0.9886	2.87	21
11105006	11SEP90:10:45	196.455	91.023	TANK	5	RF	3858	.	.	.	.	.	.	.	.	.
11105007	11SEP90:10:47	200.019	91.046	APC	15	RF	3736	.	.	.	.	.	.	.	.	.
11105008	11SEP90:10:48	202.558	91.063	TRUCK	14	RF	3647	.	.	.	.	.	.	.	.	.
11105C04	11SEP90:10:16	192.910	91.191	TANK	5	RR	2686	43.60	0.11	42.25	44.85	0.9151	0.44	0.8357	0.14	21
11105C04	11SEP90:10:16	192.149	91.185	TRUCK	11	RR	2713	44.38	0.22	41.66	46.28	0.9856	1.65	0.9770	1.19	21
12025C04	12SEP90:02:37	192.859	91.146	TANK	5	RR	2686	30.29	0.06	28.91	32.50	1.0000	0.64	0.9848	1.43	21
12025C04	12SEP90:02:37	191.534	91.185	TRUCK	11	RR	2645	29.50	0.06	28.43	30.19	0.7701	-0.06	0.3971	0.01	21
12025C08	12SEP90:02:41	201.438	91.115	APC	15	FF	3240	28.43	0.00	28.00	29.23	0.3483	-0.12	0.3641	0.08	21
12025C08	12SEP90:02:41	201.984	91.113	TRUCK	14	RR	3253	29.07	0.06	28.16	30.03	0.7876	0.23	0.8011	0.35	21
12035C04	12SEP90:03:52	192.268	91.176	TANK	3	RF	2717	28.88	0.06	27.53	29.89	0.7947	0.18	0.7441	0.11	21
12035C04	12SEP90:03:52	192.859	91.146	TANK	5	RR	2686	29.20	0.06	28.02	30.84	0.9081	0.30	0.8378	0.22	21
12035C05	12SEP90:03:53	195.665	91.154	APC	16	FF	2866	29.25	0.00	28.93	29.63	0.8095	0.47	0.9394	0.43	21
12035C05	12SEP90:03:53	194.496	91.168	TRUCK	11	FF	2812	28.88	0.00	28.24	29.52	0.8033	0.59	0.9630	1.12	21
12035C08	12SEP90:03:55	201.944	91.162	TRUCK	14	RR	2829	28.56	0.06	27.10	30.10	0.8431	0.83	0.9940	0.76	21
12045904	12SEP90:04:42	192.145	91.186	TANK	3	FF	2702	27.90	0.06	27.09	28.86	0.8536	0.24	0.7662	0.12	21
12045906	12SEP90:04:44	198.744	91.140	TANK	1	FF	3047	27.95	0.06	27.14	29.02	0.8889	-0.18	0.3111	0.12	21
12045906	12SEP90:04:44	196.505	91.014	TANK	5	FF	3854	28.43	0.06	27.25	28.86	0.8750	0.29	0.8421	0.14	10
12045907	12SEP90:04:45	198.744	91.140	TANK	1	FF	3047	27.90	0.06	27.03	28.92	0.8944	0.18	0.7581	0.09	21
12045908	12SEP90:04:46	202.110	91.113	TANK	0	FF	3282	27.79	0.00	27.09	28.38	0.7721	0.00	0.5008	0.00	21
12065006	12SEP90:06:33	196.457	91.071	TANK	0	RF	3857	28.33	0.00	27.84	28.86	0.8471	0.24	0.8573	0.21	10

VES_NAME	TIME	TGT_AZIM (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	THOT_GIP (DIMEN- SION- LESS UNIT)		TCOM_GIP (DIMEN- SION- LESS UNIT)		T_TIR2 (DIMEN- SION- LESS UNIT)	
												T_CONTR (Deg. C)	T_POT (# OF PIXELS)	T_CONTR (Deg. C)	T_POT (# OF PIXELS)	T_CONTR (Deg. C)	T_POT (# OF PIXELS)
1206S007	12SEP00:06:33	199.832	91.032	APC	16	RR	3739	27.30	0.06	26.49	28.43	0.7548	-0.18	0.2603	0.06	10	
1206S008	12SEP00:06:35	202.761	91.058	TRUCK	10	RF	3600	28.76	0.00	28.54	28.97	0.8323	0.06	0.6687	0.03	10	
	13SEP00:02:00	161.027	91.218	MULK	3	RR	1825	28.77	0.24	26.83	32.06	1.0000	0.60	0.9280	0.35	55	
810204	13SEP00:02:00	165.343	91.173	MULK	4	RR	1924	30.77	0.06	28.91	32.83	0.9978	0.67	0.9604	0.59	55	
	13SEP00:02:00	170.496	92.018	MULK	1	RR	1260	30.72	0.06	28.53	32.62	1.0000	0.67	0.9570	0.89	105	
810206	13SEP00:02:00	168.328	91.321	MULK	2	FF	1720	29.12	0.06	27.72	31.51	0.9984	0.39	0.8673	0.29	55	
	13SEP00:02:00	170.279	90.784	MULK	5	RR	2293	30.14	0.06	29.34	31.35	0.9979	0.56	0.9353	2.61	36	
810403	13SEP00:04:00	161.027	91.218	MULK	3	RR	1825	28.23	0.06	26.82	30.90	0.9989	0.85	0.9915	1.99	55	
	13SEP00:04:00	165.343	91.173	MULK	4	RR	1924	28.71	0.06	27.25	30.95	0.9988	0.51	0.9508	0.54	55	
810406	13SEP00:04:00	170.496	92.018	MULK	1	RR	1260	28.55	0.06	26.44	30.90	1.0000	0.79	0.9694	1.89	105	
	13SEP00:04:00	168.328	91.321	MULK	2	FF	1720	27.58	0.06	25.95	30.21	0.9984	0.62	0.9407	1.14	55	
810406	13SEP00:04:00	170.279	90.784	MULK	5	RR	2293	29.03	0.06	28.07	30.63	0.9996	0.57	0.9276	2.79	36	
	13SEP00:06:00	161.027	91.218	MULK	3	RR	1825	27.15	0.06	25.84	29.30	0.9875	0.62	0.9815	1.38	55	
810604	13SEP00:06:00	165.343	91.173	MULK	4	RR	1924	27.85	0.06	26.39	29.57	0.9713	0.45	0.9485	0.36	55	
	13SEP00:06:00	173.496	92.018	MULK	1	RR	1260	28.01	0.06	26.06	29.73	0.9996	0.45	0.9218	0.56	105	
810606	13SEP00:06:00	168.328	91.321	MULK	2	FF	1720	26.93	0.06	26.00	28.98	0.9437	0.17	0.7486	0.06	55	
	13SEP00:06:00	170.279	90.784	MULK	5	RR	2293	28.93	0.00	28.07	30.05	1.0000	0.51	0.9391	1.42	36	
810803	13SEP00:08:00	161.027	91.218	MULK	3	RR	1825	30.97	0.00	30.28	31.50	0.8713	-0.22	0.1670	0.71	55	
	13SEP00:08:00	165.343	91.173	MULK	4	RR	1924	31.40	0.00	31.03	31.71	0.7735	-0.28	0.0962	1.45	55	
810804	13SEP00:08:00	170.496	92.018	MULK	1	RR	1260	32.55	0.06	31.92	34.48	0.9962	0.05	0.6651	0.05	105	
	13SEP00:08:00	168.328	91.321	MULK	2	FF	1720	33.08	0.00	32.50	33.70	0.9655	-0.05	0.4517	0.04	55	
810806	13SEP00:08:00	170.279	90.784	MULK	5	RR	2293	32.13	0.00	31.77	32.66	0.5028	-0.05	0.4517	0.05	36	
	13SEP00:10:00	161.027	91.218	MULK	3	RR	1825	39.46	0.05	36.42	41.80	0.9843	-0.72	0.1130	0.71	55	
811004	13SEP00:10:00	165.343	91.173	MULK	4	RR	1924	38.90	0.05	36.47	41.45	0.9410	-0.83	0.0958	0.31	55	
	13SEP00:10:00	170.496	92.018	MULK	1	RR	1260	38.20	0.05	36.11	41.70	0.9444	0.16	0.6395	0.01	105	
811006	13SEP00:10:00	168.328	91.321	MULK	2	FF	1720	40.95	0.05	37.94	42.44	0.9830	0.16	0.6395	0.01	55	
	13SEP00:10:00	170.279	90.784	MULK	5	RR	2293	39.46	0.05	37.08	40.80	0.8622	-0.31	0.3505	0.22	36	
811203	13SEP00:12:00	161.027	91.218	MULK	3	RR	1825	43.40	0.63	39.93	45.58	0.9714	-1.25	0.1077	0.96	55	
	13SEP00:12:00	165.343	91.173	MULK	4	RR	1924	42.13	0.10	39.44	44.19	0.8306	-0.84	0.1566	0.22	55	
811204	13SEP00:12:00	170.496	92.018	MULK	1	RR	1260	41.44	0.10	39.44	45.84	0.9579	0.63	0.8146	0.14	105	
	13SEP00:12:00	168.328	91.321	MULK	2	FF	1720	44.58	0.10	41.14	46.99	0.9961	-0.42	0.3286	0.13	55	
811206	13SEP00:12:00	170.279	90.784	MULK	5	RR	2293	42.82	0.10	40.14	44.28	0.8055	-0.84	0.2105	1.58	36	
	13SEP00:14:00	161.027	91.218	MULK	3	RR	1825	46.81	0.20	43.51	48.62	0.9537	-0.71	0.1851	0.56	55	
811403	13SEP00:14:00	165.343	91.173	MULK	4	RR	1924	45.55	0.10	42.92	47.76	0.8011	-0.71	0.1874	0.10	55	
	13SEP00:14:00	170.496	92.018	MULK	1	RR	1260	44.77	0.10	42.52	48.23	0.8305	0.81	0.8437	0.21	105	
811406	13SEP00:14:00	168.328	91.321	MULK	2	FF	1720	48.23	0.10	45.64	50.12	0.9861	0.10	0.4711	0.01	55	
	13SEP00:14:00	170.279	90.784	MULK	5	RR	2293	46.60	0.10	44.57	47.85	0.7794	-1.02	0.1862	1.75	36	

VES_NAME	TIME	TGT_AZIM (DEGREES)	TGT_ELEV (DEGREES)	TYPE	ID	ORIENT	RANGE (METERS)	T_MEAN (Deg. C)	T_STD (Deg. C)	T_MIN (Deg. C)	T_MAX (Deg. C)	TMOT_GIP		TCOM_GIP		T_TIR2	
												(DIMEN- SION- LESS UNIT)	(Deg. C)	(DIMEN- SION- LESS UNIT)	(Deg. C)	(DIMEN- SION- LESS UNIT)	(# OF PIXELS)
BL1603	13SEP90:16:00	161.027	91.218	MULK	3	RR	1825	45.85	0.10	44.20	47.19	0.9305	-0.61	0.1954	0.69	55	
BL1604	13SEP90:16:00	165.343	91.173	MULK	4	RR	1924	44.88	0.10	42.73	46.91	0.9248	-0.10	0.4726	0.00	55	
BL1606	13SEP90:16:00	170.496	92.018	MULK	1	RB	1260	44.78	0.10	42.83	46.33	0.7378	1.32	0.9784	1.05	105	
BL1606	13SEP90:16:00	168.328	91.321	MULK	2	FF	1720	46.71	0.10	45.46	47.58	0.9405	0.41	0.7717	0.13	55	
BL1606	13SEP90:16:00	170.279	90.784	MULK	5	RB	2293	45.75	0.00	45.07	46.81	0.8091	-0.61	0.2633	0.29	36	
BL1803	13SEP90:18:00	161.027	91.218	MULK	3	RR	1825	41.51	0.05	40.82	42.75	0.9878	0.20	0.8576	0.55	55	
BL1804	13SEP90:18:00	165.343	91.173	MULK	4	RR	1924	41.32	0.05	40.37	42.50	0.9872	0.30	0.9197	0.34	55	
BL1806	13SEP90:18:00	170.496	92.018	MULK	1	RB	1260	41.91	0.05	40.32	44.70	1.0000	1.42	1.0000	15.06	105	
BL1806	13SEP90:18:00	168.328	91.321	MULK	2	FF	1720	41.37	0.05	40.92	42.75	0.9864	0.46	0.9564	3.40	55	
BL1806	13SEP90:18:00	170.279	90.784	MULK	5	RB	2293	41.46	0.05	40.42	43.43	0.9970	0.30	0.8918	0.21	36	
BL2003	13SEP90:20:00	161.027	91.218	MULK	3	RR	1825	40.86	0.05	39.72	43.28	1.0000	0.78	0.9951	3.15	55	
BL2004	13SEP90:20:00	165.343	91.173	MULK	4	RR	1924	41.11	0.05	39.67	43.04	1.0000	0.57	0.9770	1.07	55	
BL2006	13SEP90:20:00	170.496	92.018	MULK	1	RB	1260	42.15	0.11	39.87	44.50	1.0000	0.87	0.9920	2.39	105	
BL2006	13SEP90:20:00	168.328	91.321	MULK	2	FF	1720	40.76	0.11	39.57	43.04	0.9978	0.54	0.9632	0.99	55	
BL2006	13SEP90:20:00	170.279	90.784	MULK	5	RB	2293	41.26	0.11	40.27	43.33	0.9986	0.65	0.9795	8.13	36	
BL2203	13SEP90:22:00	161.027	91.218	MULK	3	RR	1825	36.87	0.05	35.70	39.15	1.0000	0.53	0.9763	1.91	55	
BL2204	13SEP90:22:00	165.343	91.173	MULK	4	RR	1924	37.38	0.05	36.05	39.10	1.0000	0.53	0.9767	1.11	55	
BL2206	13SEP90:22:00	170.496	92.018	MULK	1	RB	1260	38.24	0.05	36.31	40.15	1.0000	0.69	0.9889	2.09	105	
BL2206	13SEP90:22:00	168.328	91.321	MULK	2	FF	1720	37.08	0.05	35.85	39.10	0.9979	0.53	0.9762	1.36	55	
BL2206	13SEP90:22:00	170.279	90.784	MULK	5	RB	2293	37.63	0.05	36.97	39.30	0.9987	0.58	0.9819	11.29	36	
BL2403	14SEP90:00:00	161.027	91.218	MULK	3	RR	1825	34.37	0.05	33.34	36.33	1.0000	0.48	0.9784	2.30	55	
BL2404	14SEP90:00:00	165.343	91.173	MULK	4	RR	1924	34.89	0.05	33.80	36.33	1.0000	0.43	0.9773	0.87	55	
BL2406	14SEP90:00:00	170.496	92.018	MULK	1	RB	1260	35.05	0.05	33.28	36.69	1.0000	0.59	0.9868	1.87	105	
BL2406	14SEP90:00:00	168.328	91.321	MULK	2	FF	1720	34.22	0.05	33.13	35.92	0.9978	0.48	0.9759	1.09	55	
BL2406	14SEP90:00:00	170.279	90.784	MULK	5	RB	2293	34.99	0.00	34.43	36.33	0.9992	0.48	0.9759	5.58	36	

APPENDIX E: VISIBLE TARGET METRICS

WES_NAME	ID	V_MEAN (BRIGHT- MESS VALUE)	V_STD (BRIGHT- MESS VALUE)	V_MIN (BRIGHT- MESS VALUE)	V_MAX (BRIGHT- MESS VALUE)	VARK_GTP (DIMEN- SION- LESS UNIT)	DARK_CON (BRIGHT- MESS VALUE)	VCON_GTP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
0606R101	3	-	-	-	-	-	-	-	-	-	TRAINING	162.000	91.33
0606R102	15	-	-	-	-	-	-	-	-	-	TRAINING	164.500	91.33
0606R102	4	-	-	-	-	-	-	-	-	-	TRAINING	164.500	91.33
0606R104	16	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	1	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	2	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	5	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	3	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	11	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0606R104	5	-	-	-	-	-	-	-	-	-	TRAINING	174.500	91.33
0606R106	5	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33
0606R107	6	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33
0606R107	7	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33
06110306	-	2838	478	1774	3710	0.9760	473	0.9654	2.8910	351	DEMONSTRATION	197.500	91.25
06110306	-	1978	442	1374	3217	0.9964	552	0.9831	1.4300	351	DEMONSTRATION	197.500	91.25
06110308	-	2701	549	1502	3401	0.9965	407	0.9636	3.4850	351	DEMONSTRATION	202.500	91.25
0708R201	3	-	-	-	-	-	-	-	-	-	TRAINING	162.000	91.33
0708R202	4	-	-	-	-	-	-	-	-	-	TRAINING	164.500	91.33
0708R203	16	-	-	-	-	-	-	-	-	-	TRAINING	167.000	91.33
0708R203	11	-	-	-	-	-	-	-	-	-	TRAINING	167.000	91.33
0708R204	1	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0708R204	2	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0708R204	5	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0708R204	3	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0708R204	5	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0708R207	6	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33
0708R207	7	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33
0710R201	3	-	-	-	-	-	-	-	-	-	TRAINING	162.000	91.33
0710R202	4	-	-	-	-	-	-	-	-	-	TRAINING	164.500	91.33
0710R203	16	-	-	-	-	-	-	-	-	-	TRAINING	167.000	91.33
0710R203	11	-	-	-	-	-	-	-	-	-	TRAINING	167.000	91.33
0710R204	1	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0710R204	2	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0710R204	5	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0710R204	3	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0710R204	5	-	-	-	-	-	-	-	-	-	TRAINING	169.500	91.33
0710R206	15	-	-	-	-	-	-	-	-	-	TRAINING	174.500	91.33
0710R207	6	-	-	-	-	-	-	-	-	-	TRAINING	177.000	91.33

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	WORK_GTP (DIMEN- SION- LESS UNIT)	DARK_COM (BRIGHT- NESS VALUE)	VCON_GTP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
0710R207	7	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
0712S701	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0712S701	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0712S701	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S701	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S701	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S701	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S702	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S702	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S702	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S703	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S703	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S703	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S704	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S704	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S704	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S705	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S705	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S705	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S706	15	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S706	5	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0803S706	14	.	.	.	.	.	.	.	.	.	TESTING	235.284	92.33
0804S801	15	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S801	5	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S801	11	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S802	15	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S802	5	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S802	11	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S803	15	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S803	5	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S803	11	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S804	15	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S804	5	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S804	11	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S805	15	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S805	5	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33
0804S805	11	.	.	.	.	.	.	.	.	.	TESTING	235.277	92.33

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	VDK_GTP (DIMEN- SION- LESS UNIT)	DARK_COM (BRIGHT- NESS VALUE)	VCOM_GTP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
0806S405	5	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0806S405	11	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0806S408	15	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0806S408	30	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0807S505	5	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0807S505	11	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0807S508	15	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0807S508	30	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0808S605	15	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0808S605	30	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.25
0808S608	5	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0808S608	11	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
0809S902	3	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.00
0809S903	5	.	.	.	.	.	.	.	.	.	TESTING	195.000	91.00
0809S906	1	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.00
0809S907	0	.	.	.	.	.	.	.	.	.	TESTING	205.000	91.00
1003R101	3	.	.	.	.	.	.	.	.	.	TRAINING	162.000	91.33
1003R102	15	.	.	.	.	.	.	.	.	.	TRAINING	164.500	91.33
1003R102	4	.	.	.	.	.	.	.	.	.	TRAINING	164.500	91.33
1003R104	16	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1003R104	1	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1003R104	2	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1003R104	5	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1003R104	11	.	.	.	.	.	.	.	.	.	TRAINING	172.000	91.33
1003R105	3	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1003R107	6	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1003R107	7	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1003R107	5	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1004R201	3	.	.	.	.	.	.	.	.	.	TRAINING	162.000	91.33
1004R202	4	.	.	.	.	.	.	.	.	.	TRAINING	164.500	91.33
1004R203	16	.	.	.	.	.	.	.	.	.	TRAINING	167.000	91.33
1004R203	11	.	.	.	.	.	.	.	.	.	TRAINING	167.000	91.33
1004R204	1	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1004R204	2	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1004R204	5	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1004R204	3	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1004R204	5	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	VOBK_GTP (DIMEN- SION- LESS UNIT)	DARK_CON (BRIGHT- NESS VALUE)	VCON_GTP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
1004R207	6	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1004R207	7	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1005R301	3	.	.	.	.	.	.	.	.	.	TRAINING	162.000	90.75
1005R302	4	.	.	.	.	.	.	.	.	.	TRAINING	164.500	90.75
1005R304	2	.	.	.	.	.	.	.	.	.	TRAINING	169.500	90.75
1005R304	5	.	.	.	.	.	.	.	.	.	TRAINING	169.500	90.75
1005R306	3	.	.	.	.	.	.	.	.	.	TRAINING	174.500	90.75
1005R307	15	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1005R307	16	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1005R307	6	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1005R307	7	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1005R307	5	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1005R307	11	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1008R101	3	.	.	.	.	.	.	.	.	.	TRAINING	177.000	90.75
1008R102	15	.	.	.	.	.	.	.	.	.	TRAINING	162.000	91.33
1008R102	4	.	.	.	.	.	.	.	.	.	TRAINING	164.500	91.33
1008R104	1	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1008R104	2	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1008R104	5	.	.	.	.	.	.	.	.	.	TRAINING	169.500	91.33
1008R104	11	.	.	.	.	.	.	.	.	.	TRAINING	172.000	91.33
1008R105	16	.	.	.	.	.	.	.	.	.	TRAINING	172.000	91.33
1008R105	3	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1008R107	6	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1008R107	7	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1008R107	5	.	.	.	.	.	.	.	.	.	TRAINING	177.000	91.33
1104S104	0	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.25
1104S104	1	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.25
1104S106	16	.	.	.	.	.	.	.	.	.	TESTING	197.500	91.25
1104S106	11	.	.	.	.	.	.	.	.	.	TESTING	197.500	91.25
1104S106	14	.	.	.	.	.	.	.	.	.	TESTING	197.500	91.25
1104S204	0	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.25
1104S204	1	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.25
1104S204	14	.	.	.	.	.	.	.	.	.	TESTING	192.500	91.25
1104S206	16	.	.	.	.	.	.	.	.	.	TESTING	197.500	91.25
1104S206	11	.	.	.	.	.	.	.	.	.	TESTING	197.500	91.25
1104S208	15	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25
1104S208	3	.	.	.	.	.	.	.	.	.	TESTING	202.500	91.25



WES_NAME	ID	V_MEAN (BRIGHT- MESS VALUE)	V_STD (BRIGHT- MESS VALUE)	V_MAX (BRIGHT- MESS VALUE)	V_MIN (BRIGHT- MESS VALUE)	VDRK_GTP (DIMEN- SION- LESS UNIT)	DARK_CON (BRIGHT- MESS VALUE)	VCON_GTP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
1108S804	3	2028	465	3135	1173	0.9943	321	0.9766	1.4300	325	TESTING	192.500	91.25
1108S804	5	2602	418	4244	1476	0.9650	-41	0.4000	0.0200	351	TESTING	192.500	91.25
1108S806	16	2459	611	4811	1283	0.9842	-3	0.4886	0.0000	253	TESTING	197.500	91.25
1108S806	11	2048	558	4595	991	0.9995	369	0.9802	1.3130	325	TESTING	197.500	91.25
1108S806	14	2379	387	3412	1196	0.9906	34	0.5886	0.0210	325	TESTING	197.500	91.25
1108S808	15	2563	512	4203	1613	0.9827	-105	0.2529	0.0900	231	TESTING	202.500	91.25
1109SC04	3	2299	410	3742	1407	0.9890	57	0.7274	0.0640	325	TESTING	192.500	91.25
1109SC04	5	2267	531	3145	1255	0.9960	263	0.9752	1.1990	351	TESTING	192.500	91.25
1109SC05	11	2634	478	3674	1555	0.9813	-4	0.4827	0.0000	325	TESTING	195.000	91.25
1109SC06	16	2218	560	3357	1194	0.9976	235	0.9218	1.2200	253	TESTING	197.500	91.25
1109SC06	14	2560	330	3487	1794	0.9339	-190	0.1118	0.4360	325	TESTING	197.500	91.25
1109SC08	15	2422	499	3687	1458	0.9951	12	0.5560	0.0020	231	TESTING	202.500	91.25
1109S004	16	2607	352	3324	1623	0.9828	74	0.7731	0.0890	351	TESTING	192.500	91.25
1109S005	3	2264	465	3268	1350	0.9981	208	0.9337	0.0610	325	TESTING	195.000	91.25
1109S005	5	2716	349	3692	1803	0.9661	-36	0.3578	0.0160	325	TESTING	195.000	91.25
1109S007	14	2624	584	3971	1571	0.9874	227	0.9315	0.7310	253	TESTING	197.500	91.25
1110S006	5	2369	278	2956	1559	0.9880	261	0.9465	3.4730	171	TESTING	200.000	91.25
1110S007	15	2482	345	2865	1682	0.9878	244	0.9438	4.0190	171	TESTING	200.000	91.25
1110S008	14	2406	336	2955	1631	0.9954	331	0.9850	1.5690	351	TESTING	192.500	91.25
1110S404	5	2466	494	3203	1472	0.9948	292	0.9814	1.5690	351	TESTING	192.500	91.25
1110S404	11	2234	507	3279	1292	0.9979	339	0.9910	2.0430	325	TESTING	192.500	91.25
1202S404	5	-	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1202S404	11	-	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1202S408	15	-	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1202S408	14	-	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1203SC04	3	-	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1203SC04	5	-	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1203SC05	16	-	-	-	-	-	-	-	-	-	TESTING	195.000	91.25
1203SC05	11	-	-	-	-	-	-	-	-	-	TESTING	195.000	91.25
1203SC05	14	-	-	-	-	-	-	-	-	-	TESTING	195.000	91.25
1203SC08	15	-	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1204S904	3	-	-	-	-	-	-	-	-	-	TESTING	192.500	91.25
1204S906	1	-	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1204S906	5	-	-	-	-	-	-	-	-	-	TESTING	197.500	91.25
1204S907	1	-	-	-	-	-	-	-	-	-	TESTING	200.000	91.25
1204S908	0	-	-	-	-	-	-	-	-	-	TESTING	202.500	91.25
1206S006	0	264	30	349	217	0.5792	-19	0.2058	0.7190	171	TESTING	197.500	91.00

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	VORK_GIP (DIMEN- SION- LESS UNIT)	DARK_CON (BRIGHT- NESS VALUE)	VCON_GIP (DIMEN- SION- LESS UNIT)	V_TIR2 (DIMEN- SION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
1206S007	16	427	114	813	261	0.7329	-65	0.0572	1.5750	171	TESTING	200.000	91.00
1206S008	10	477	71	694	343	0.6970	0	0.5007	0.0000	171	TESTING	202.500	91.00
BL02J3	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33
BL0204	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33
BL0206	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0206	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0206	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0403	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33
BL0404	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33
BL0406	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0406	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0406	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0603	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33
BL0604	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33
BL0606	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0606	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0606	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL0803	3	1744	388	2480	998	0.9972	316	0.9822	2.7850	741	BASELINE	162.000	91.33
BL0804	4	2215	571	3129	1216	0.9935	292	0.9906	1.2400	703	BASELINE	164.500	91.33
BL0806	1	1619	530	2934	868	0.9989	513	1.0000	1.6120	1485	BASELINE	169.500	91.33
BL0806	2	1558	284	2265	767	1.0000	174	0.9222	1.0450	861	BASELINE	169.500	91.33
BL0806	5	1825	379	2755	1220	0.9399	213	0.9559	1.4400	445	BASELINE	169.500	91.33
BL1003	3	2155	513	2946	1195	0.9994	368	0.9897	2.7670	741	BASELINE	162.000	91.33
BL1004	4	2688	696	3746	1481	0.9946	317	0.9947	1.2510	703	BASELINE	164.500	91.33
BL1006	1	2422	740	4389	1357	0.9969	659	1.0000	1.8020	1485	BASELINE	169.500	91.33
BL1006	2	2398	446	3341	1118	1.0000	260	0.9614	1.4480	861	BASELINE	169.500	91.33
BL1006	5	2425	578	3460	1427	0.9942	474	0.9977	5.6780	445	BASELINE	169.500	91.33
BL1203	3	2498	619	3501	1344	0.9992	405	0.9953	2.3230	741	BASELINE	162.000	91.33
BL1204	4	3131	857	4539	1706	0.9938	323	0.9916	0.9590	703	BASELINE	164.500	91.33
BL1206	1	2682	782	4912	1562	0.9961	751	1.0000	2.0340	1485	BASELINE	169.500	91.33
BL1206	2	2799	533	3973	1309	0.9999	287	0.9589	1.0210	861	BASELINE	169.500	91.33
BL1206	5	2767	653	3857	1700	0.9903	599	0.9997	6.4450	445	BASELINE	169.500	91.33
BL1403	3	-	-	-	-	-	-	-	-	-	BASELINE	162.000	91.33
BL1404	4	-	-	-	-	-	-	-	-	-	BASELINE	164.500	91.33
BL1406	1	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL1406	2	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33
BL1406	5	-	-	-	-	-	-	-	-	-	BASELINE	169.500	91.33

WES_NAME	ID	V_MEAN (BRIGHT- NESS VALUE)	V_STD (BRIGHT- NESS VALUE)	V_MAX (BRIGHT- NESS VALUE)	V_MIN (BRIGHT- NESS VALUE)	VORK_GTP (DIMER- STION- LESS UNIT)	DARK_COM (BRIGHT- NESS VALUE)	VCON_GTP (DIMER- STION- LESS UNIT)	V_TIR2 (DIMER- STION- LESS UNIT)	V_POT (# OF PIXELS)	PURPOSE	IMG_AZTH (DEGREES)	IMG_ELEV (DEGREES)
BL1603	3	1892	512	2790	864	1.0000	431	0.9981	2.9320	741	BASELINE	162.000	91.33
BL1604	4	2373	713	3592	1129	0.9988	238	0.9693	3.7360	703	BASELINE	164.500	91.33
BL1606	1	2036	632	4285	1055	0.9976	619	0.9993	2.0670	1485	BASELINE	169.500	91.33
BL1606	2	1979	423	2782	841	1.0000	226	0.9373	0.8190	861	BASELINE	169.500	91.33
BL1606	5	1957	445	2949	1103	0.9959	474	0.9950	1.9990	465	BASELINE	169.500	91.33
BL1803	3	1027	286	1668	455	1.0000	185	0.9584	1.1310	741	BASELINE	162.000	91.33
BL1804	4	1227	346	1810	605	0.9809	84	0.8667	0.1790	703	BASELINE	164.500	91.33
BL1806	1	1035	283	2322	532	0.9792	245	0.9906	1.1710	1485	BASELINE	169.500	91.33
BL1806	2	914	178	1467	423	0.9999	108	0.8886	0.4850	861	BASELINE	169.500	91.33
BL1806	5	950	210	1480	557	0.9732	135	0.9319	0.3400	465	BASELINE	169.500	91.33
BL2003	3	.	.	.	.	.	.	.	.	.	BASELINE	162.000	91.33
BL2004	4	.	.	.	.	.	.	.	.	.	BASELINE	164.500	91.33
BL2006	1	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2006	2	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2006	5	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2203	3	.	.	.	.	.	.	.	.	.	BASELINE	162.000	91.33
BL2204	4	.	.	.	.	.	.	.	.	.	BASELINE	164.500	91.33
BL2206	1	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2206	2	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2206	5	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2403	3	.	.	.	.	.	.	.	.	.	BASELINE	162.000	91.33
BL2404	4	.	.	.	.	.	.	.	.	.	BASELINE	164.500	91.33
BL2406	1	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2406	2	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33
BL2406	5	.	.	.	.	.	.	.	.	.	BASELINE	169.500	91.33